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35 Assistant

Staff Reporter, Hooghly : Office of the Project Director, ATMA, Hooghly is going to recruit 35 persons for the posts of 'Assistant Technology Manager (ATM)' and 'Block Technology Manager (BTM)' on contractual basis.

57 Manager

Staff Reporter, Kolkata : West Bengal State Health & Family Welfare Samiti under Govt. of West Bengal is going to recruit 57 persons for the post of 'Public Health Manager' under National Urban

40 ASHA Worker

Staff Reporter, Uttar Dinajpur : Office of the Sub-Divisional Officer, Islampur, Uttar Dinajpur is going to recruit 40 persons for the post of 'ASHA' for following Blocks of Uttar

16 Driver

Staff Reporter, Mumbai : Department of Posts, India is going to recruit 16 persons for the post of Staff Car Driver (Ordinary Grade) in Gr.-C. Candidates who have passed 10th Standard

14 Paramedics

Staff Reporter, Chittaranjan : Chittaranjan Locomotive Works under Ministry of Railways, Govt. of India, is going to recruit 14 persons for the posts of 'Staff Nurse' and

2,173 Doctor

Staff Reporter, Cuttack : The Odisha Medical & Health Service Cadre under Health & Family Welfare Department is going to recruit 2,173 persons for the post of 'Medical Officer (Assistant

In Kendriya Vidyalaya Sangathan
986 Clerk, Steno., Librarian & Assistant

FOR CLASS-XII PASSED & GRADUATES

Tanaya Saha, New Delhi : Kendriya Vidyalaya Sangathan (KVS), an autonomous organisation under the Ministry of Human Resource Development, Govt of India is going to recruit 986 male & female persons for the posts of 'Lower Division Clerk', 'Stenographer Gr.II', 'Librarian', 'Upper Division Clerk' and 'Assistant'.

Post Code 10 : Lower Division Clerk in Group-C. Candidates, who have passed 12th standard examination of any recognised Board / Council are eligible for the post.

In addition to this qualification, candidates should have typing speed of at least 35 w.p.m. in English or 30 w.p.m. in Hindi on computer. Candidates should also have working knowledge of Hindi & proficiency in basic computer applications. Age should be within 27 years as on 31.01.2018. Pay Level is Rs.19,900/- – 63,200/-. Number of vacancy is 561 (UR : 284, SC : 84, ST : 42, OBC : 151), out of which Orthopaedically Challenged : 06, Visually Challenged : 06, Hearing Challenged : 05.

Post Code 9 : Stenographer Gr.II in Group-C. Candidates, who have passed 12th standard examination of any recognised Board / Council **Contd. on Page 2**

3,162 Apprentice in Northern Rail

FOR CLASS-X & ITI COURSE PASSED

Ranjit Ghosh, New Delhi : Northern Railway is going to induct 3,162 persons as 'Act Apprentice' under Apprenticeship Act, 1961 for different divisions in various trades. Candidates, who have passed Trade Certificate Course in relevant trade from any ITI recognised by NCVT

after passing 10th standard examination from any recognised Board / Council with at least 50% marks or its equivalent grade in aggregate are

63 Skilled Assistant

Special Correspondent, Jammu : Central Water Commission under Ministry of Water Resources, River Development & Ganga Rejuvenation of Govt. of India is going to recruit 63 persons for the post of 'Skilled Work Assistant'. Post Code : SWA.

In Indian Coast Guard
Hundreds of Navik

FOR CLASS-XII PASSED

Staff Reporter, New Delhi : Indian Coast Guard under Ministry of Defence is going to recruit a large number of unmarried male persons for the post of 'Navik (General Duty)' through 10+2 Entry. Candidates, who have passed 12th standard examination from any Board / Council

In AIIMS, Rishikesh
125 Nurse

FOR GRADUATES & POST GRADUATES

Special Correspondent, Rishikesh : All India Institute of Medical Sciences (AIIMS), Rishikesh is going to recruit 125 persons for the post of 'Staff Nurse Gr.I (Nursing Sister)'.

Graduates (B.Sc. 4-years) in Nursing of any University / Institute recognised by Indian Nursing Council are eligible for the post. Candidates, who have passed 2-years Post Basic B.Sc.-Nursing or its

Admission to 10th Class in Rabindra Open School

Tarak Nath Das, Kolkata : Rabindra Open School under Govt. of West Bengal is going to admit a large number of students to Class-X. Students, who have passed Calss-VIII examination from any recognised School

are eligible to apply. Students, who have failed in the 10th standard exam may also apply. The compulsory subjects of the 10th standard exam in Rabindra Open School is as follows (Subject Code given within bracket) :

Teacher in Rail

Staff Reporter, Guwahati : North East Frontier Railway is going to recruit 9 persons for the posts of 'Post Graduate Teacher', 'Trained Graduate Teacher' and 'Primary Teacher' for

MBA Course in IISWBM : 13th Pg

In Southern Naval Command
810 Tradesman

FOR CLASS-X, XII PASSED & GRADUATES

Special Correspondent, Pune : Southern Naval Command, Pune under Ministry of Defence, Govt. of India is going to recruit 810 persons for the posts of 'Material Assistant', 'Fireman', 'Cook', 'Tradesman Mate', 'Lower Division Clerk', 'Safaiwala', 'Messenger', 'Female Searcher', 'Tele Operator', 'Vender', 'Carpenter & Joiner' and 'Electrician'.

Post : Lower Division Clerk. Candidates, who have passed 12th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have typing speed of at least 35 w.p.m. in English / 30 w.p.m. in Hindi on computer. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,900/-.

Through PSC, West Bengal
Thousands of Junior Engineer

FOR DIPLOMA HOLDERS

Saikat Halder, Kolkata : Various Departments, Directorates & other Offices of Govt. of West Bengal are going to recruit hundreds of persons for the post of 'Junior Engineer' through Public Service Commission, West Bengal.

Candidates, who have passed Diploma Course in Civil / Mechanical / Electrical Engineering from any Polytechnic recognised by SCTE are eligible to apply in respective discipline. In addition to this qualification, candidates should have reading, writing & speaking proficiency in Bengali language

48 Gr-D Staff

FOR CLASS-X & XII PASSED

Special Correspondent, Guwahati : 188 Military Hospital, Likaball (Assam) is going to recruit 48 persons for the posts of 'Sweeper', 'Barber', 'Washerman', 'Stenographer', 'Lower Division Clerk', 'Messenger', 'Mazdoor', 'Chowkidar', 'Ward Sahayika' and 'Safaiwali'.

Post : Sweeper. Number of vacancy is 07 (UR : 05, OBC : 01, SC : 01).

Post : Barber. Number of vacancy is 03 (UR).

Post : Washerman. Number of vacancy is 10 (UR : 07, OBC : 02, SC : 01).

Post : Messenger. Number of vacancy is 03 (UR).

Post : Mazdoor. Number of vacancy is 03 (UR).

Post : Chowkidar. Number of vacancy is 07 (UR : 05, OBC : 01, SC : 01).

Post : Safaiwali. Number of vacancy is 01 (UR).

Candidates who have passed 10th standard examination from any recognised

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Vol. 13 ■ No. 11 ■ 23rd Dec., 2017

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RESULT ■

Union Public Service Commission has
declared the result of the
'*Civil Services (Main)
Examination, 2016*'.
Details will be available on
this website
www.upsc.gov.in
■.

Union Public Service Commission has
declared the final result of
the '*National Defence
Academy & Naval
Academy Examination (I),
2017*'. Details will be
available on this website :
www.upsc.gov.in
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Union Public Service Commission has
declared the final result of
the '*Combined Defence
Services Examination (I),
2017*'. The examination
was held on 05.02.2017.
Details will be available on
this website
www.upsc.gov.in

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986 Clerk, Steno.
From Page 1

are eligible for the post. In addition to this qualification, candidates should have stenography speed of at least 80 w.p.m. and ability to transcript the matter in English & Hindi on computer. Age should be within 27 years as on 31.01.2018. Pay Level is Rs.25,500/- – 81,100/-. Number of vacancy is 38 (UR : 19, SC : 06, ST : 03, OBC : 10), out of which Orthopaedically Challenged : 01, Visually Challenged : 01.
Post Code 11 : Librarian.
Graduates in Library Science of any recognised University are eligible for the post. Graduates in any discipline of any recognised Board / Council / University may also apply provided they should be passed 1-year's Diploma Course in Library Science from any recognised University / Institute. In addition to this qualification, candidates should have working knowledge of Hindi & English subjects. Age should be within 35 years as on 31.01.2018. Pay Level is Rs.44,900/- – 1,42,400/-. Number of vacancy is 214 (UR : 100, SC : 30, ST : 30, OBC : 54), out of which Orthopaedically Challenged : 03, Hearing Challenged : 07.
Post Code 8 : Upper Division Clerk in Group-C.
Graduates in any discipline of any recognised University / Institute are eligible for the post. In addition to this qualification, candidates should have working experience of at least 3-years' as '*Lower Division Clerk*' in any Autonomous Body / PSU / Central or State Govt. Organisation. Knowledge of Computer Applications is desirable. Age should be within 30 years as on 31.01.2018. Pay Level is Rs.25,500/- – 81,100/-. Number of vacancy is 146 (UR : 70, SC : 24, ST : 13, OBC : 39), out of which Orthopaedically Challenged : 02, Visually Challenged : 02, Hearing Challenged : 01.
Post Code 6 : Assistant In Group-B.
Graduates in any discipline of any recognised University / Institute are eligible for the post. In addition to this qualification, candidates should have working experience of at least 3-years' as '*Upper Division Clerk*' in any Autonomous Body / PSU / Central or State Govt. Organisation. Knowledge of Computer Applications is desirable. Age should be within 35 years as on 31.01.2018. Pay Level is Rs.35,400/- – 1,12,400/-. Number of vacancy is 27 (UR : 16, SC : 04, ST : 02, OBC : 05), out of which Orthopaedically Challenged : 01.
For all posts : Candidates who have already apply against Advertisement No.10 need not to apply again or to pay any kind of application fee again. They just need to update their address of communication, e-mail ID, mobile no., option for examination centre, option for zonal posting or any other relevant information in this regard. They also have to upload their latest photograph & signature within 11.01.2018. OBC & SC / ST candidates will get relaxation in age

by 3 years & 5 years respectively. Ex-Servicemen & Physically challenged candidates will get exemption in age as per the Govt. Rules.
Mode of Selection : Selection will be made on the basis of Written Test & Interview. The written exam will be held at the following centres in Eastern India (Centre Code is given within bracket) : Kolkata (Centre Code : 45), Berhampore (10), Bhubaneswar (15), Bokaro Steel City (18), Patna (63), Ranchi (66), Bhagalpur (11), Muzaffarpur (54), Jamshedpur (42) & Guwahati (33).
For the posts of '*Librarian*', the written test of 3 hours duration will comprise of 2 parts containing multiple choice objective type questions. **Part-I** will consist of questions based on the following 2 subjects : (i) English & (ii) Hindi. Each subject will carry 20 marks. **Part-II** will consist of questions based on the following 3 subjects : (i) Current Affairs – 30 marks, (ii) Reasoning Ability – 30 marks & (iii) Subject Knowledge – 100 marks.
For the posts of '*Lower Division Clerk*' & '*Stenographer*', the written test of 2 hours duration will consist of 2 parts containing multiple choice objective type questions. **Part-I** will consist of questions based on the following 2 subjects : (i) English & (ii) Hindi. Each subject will carry 20 marks. **Part-II** will consist of questions based on the following subjects : (i) General Knowledge – 15 marks, (ii) Logical Reasoning – 15 marks, (iii) Computer Literacy – 15 marks, (iv) Quantitative Aptitude – 15 marks. For the post of '*Lower Division Clerk*', selected candidates will have to appear for typing test carrying 50 marks & computer proficiency test of 100 marks. For '*Stenographer*', selected candidates will have to appear for shorthand test of 50 marks followed by typing test of 50 marks & computer proficiency test carrying 100 marks.
For the posts of '*Upper Division Clerk*' & '*Assistant*', the written test of 3 hours duration will comprise 3 parts containing multiple choice objective type questions. **Part-I** will consist of questions based on the following 2 subjects : (i) English & (ii) Hindi. Each subject will carry 10 marks. **Part-II** will consist of questions based on the following subjects : (i) General Knowledge – 10 marks, (ii) Logical Reasoning – 10 marks, (iii) Computer Literacy – 10 marks. **Part-III** will consist of questions based on the following 2 subjects : (i) Administration, Establishment & Finance – 90 marks, (ii) English & Hindi Comprehension – 20 marks. Selected candidates will have to appear for computer proficiency test carrying 100 marks.
How to Apply : Candidates will have to apply on-line through this website : www.kvsangathan.nic.in within 11.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. At first, candidates will have to visit the website & open the appropriate on-line application form to fill in all the required fields. At the time of

applying on-line, candidates will also have to pay Rs.750/- through on-line Payment Gateway by using Credit / Debit Card / Net Banking Facility. No application fee is required for SC / ST / PWD / EX-Serviceman. After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking '*Submit*' button. After that, candidates are required to obtain the print-out of the computerised system generated application form, which must be retained for future purpose. Last date for the submission of the on-line application is 11th January, 2018.
Advertisement No. 13.
Source : Available on ww.kvsangathan.nic.in

57 Manager   From Page 1

Health Mission on contractual basis.
Graduates in Nursing / Dental of any recognised University / Institute are eligible for the post. Post Graduates in Botany / Zoology / Human Physiology / Microbiology / Biochemistry / Biotehnology / Bioinformatics / Economics of any recognised University / Institute may also apply. Post Graduates in Public Health / Community Health / Preventive & Social Medicine of any recognised University / Institute after passing Degree Course in Social Science are also eligible. Post Graduates in Business Administration (MBA) in Human Resource / Health Care of any recognised University / Institute may also apply. In addition to this qualification, candidates should have efficiency in Computer Operation including MS Office & Internet. Candidates must have 2 years post qualification experience in the field of Health Programme Management in disease surveillance / community mobilisation / inter sectorial collaboration / IEC-BCC activities / quality control / motoring & evaluation. Age should be within 40 years as on 01.04.2017. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Ex-Servicemen & Physically challenged candidates will get exemption in age as per the Govt. Rules. Remuneration will be Rs.25,000/- p.m. Number of vacancy is 57 (UR : 23, SC : 15, ST : 05, OBC-A : 07, OBC-B : 04, PWD : 03).
Mode of Selection : Selection will be made on the basis of marks obtained in qualifying examination & experience. Shortlisted candidates will be called for Computer Test.
How to Apply : Candidates will have to apply on-line through this website : www.wbhealth.gov.in within 26.12.2017. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. At first, candidates will have to visit the website & open the appropriate on-line application form. Thereafter, candidate will have to fill in all the required fields and upload his / her passport size recent coloured photograph & signature in specific digital format. Afterwards, candidates will have to pay Rs.100/- (Rs 50/- for reserved category) as application fee by using on-line payment gateway through Credit / Debit Card / Net Banking Facility.
Candidates may also pay the application fee of Rs.100/- - (Rs.50/- for reserved category) through '*e-challan*'. In that case candidates will have to download the '*e-challan*' from the website & pay the application fee in any branch of United Bank of India along with the challan within 29.12.2017. After payment, candidates will have to revisit the website & upload the payment details.
After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking '*Submit*' button within 31.12.2017. After that, candidates are required to obtain the print-out of the computerised system generated application form, which must be retained for future purpose.
Source : Available on www.wbhealth.gov.in

Pattern of Question, Syllabus & Probable Q & A of the Exam. for Junior Engineer (Electrical) in CPWD thru SSC

Selection process for the post of *Junior Engineer (Electrical)'* will be made on the basis of Written Test (2 part) followed by Personal Interview. Part-I of the Written Test consists of objective type questions based on the following two sections : (1) General Intelligence & General Knowledge, (2) Discipline Knowledge. Qualified candidates in this Written Test will be called for Part-II Written Test comprising Descriptive Type questions based on Technical Knowledge. Important chapters of the Written Exam is as follows : Basic Electrical Engineerng and Electrical Measurements, Circuit Law, A.C. fundamentals, Measurement and measuring instruments, Electrical machines, 1-phase and 3-phase Transformers, Synchronous machines, 3-phase Induction motor, General Transmission and Distribution, Power factor, Switchgears, Lightning arresters, Various transmission and distribution systems, Utilization of Electrical Energy. In this issue previous year question paper of 2016 of different sets of the chapters Basic Electronics & Switchgear Protection (Circuit Breaker, Fuse, Protective Relay) are discussed by Career Counsellor **Subrata Kumar Sinha** with probable 47 questions with answers.

Basic Electronics

1. Applications of precision diode are
A. half wave rectifier   B. peak detector
C. window detector
(a) A, B and C (b) A and C (c) A and B (d) None of these

2. In an intrinsic semiconductor_____.
(a) there are no holes in the material (b) number of holes is equal to number of electrons (c) electrons in the material are more than holes (d) there are no electrons in the material

3. The minority of carrier concentration is largely a function of_____.
(a) the amount of doping (b) temperature (c) forward biasing voltage (d) reverse biasing voltage

4. In the depletion region of a PN junction, there are
(a) no charge (b) no mobile charges (c) no current (d) None of these

5. The donor atoms in an N type semiconductor at normal temperature_____.
(a) Carry a positive charge (b) carry a negative charge (c) are neutral (d) None of these

6. Fermi energy level for P type extrinsic semiconductors lies
(a) At middle of the band gap (b) Close to conduction band (c) Close to valence band (d) None of these

7. _____is the dominant form of distortion produced by the simple pushpull amplifier.
(a) Crossover distortion (b) Harmonic Distortion (c) Clipping (d) Clamping

8. The average voltage at the output of FWR is____.
(a) $2V_m$/n (b) V_m / n (c) V_m/2 (d) None of these

9. Attenuation in a network in decibels is equal to
(a) 0.735 x attenuation in nepers (b) 0.367 x attenuation in nepers (c) 2.332 x attenuation in nepers (d) 8.686 x attenuation in nepers

10. For a prototype low pass filter, the series and shunt elements are respectively _____.
(a) capacitive and inductive (b) inductive and capacitive (c) series combination of capacitance and inductance (d) resistive and inductive

11. For a prototype high pass filter, the series element is
(a) resistive (b) inductive (c) capacitive (d) combination of inductance and capacitance

12. The shunt element of prototype high pass filter is
(a) resistive (b) inductive (c) capacitive (d) combination of inductance and capacitance

13. If Voltage Standing Wave Ratio, (VSWR) of a wave is 2, its reflection coefficient will be ._____.
(a) 0 (b) 1/2 (c) 1/3 (d) 1

14. A dominant wave is characterised by_____.
(a) lowest attenuation (b) highest attenuation (c) lowest cut off wavelength (d) highest cut off wavelength

15. In an RC-coupled Common Emitter amplifier:..
(a) coupling capacitance affects the hf response and bypass capacitance affects the lf response (b) both coupling and bypass capacitance affect the lf response only (c) both coupling and bypass capacitance affect the hf response only (d) coupling capacitance affects the lf response and the bypass capacitance affects the hf response

16. The threshold voltage of an n channel MOSFET can be increased by _____.

(a) increasing the channel doping concentration (b) reducing the channel doping concentration (c) reducing the gate oxide thickness (d) reducing the channel length

17. The transit time of the current carriers through the channel of an FET decides its _____ characteristics.
(a) Switching (b) On/Off (c) Dynamic (d) Load

18. The drift velocity of electrons, in silicon _____.
(a) is proportional to the electric field for all values of electric field (b) is independent of the electric field (c) increases at low values of electric field and decreases at high values of electric field exhibiting negative differential resistance. (d) increases linearly with electric field at low values of electric field and gradually saturates at higher values of electric field

19. Thermal runaway in a transistor biased in the active range is due to _____.
(a) heating the transistor (b) changes in β which increases with temperature (c) base emitter voltage VBE which decreases with rise in temperature (d) change in reverse collector saturation current due to rise in temperature

20. Resistivity of a semiconductor depends on _____.
(a) the length of the semiconductor specimen (b) crosssectional area of the semiconductor specimen (c) volume of the semiconductor specimen (d) the atomic nature of the semiconductor

21. A germanium atom contains _____.
(a) four valence electrons (b) six valence electrons (c) four protons (d) six protons

22. A hole is the vacancy created when _____.
(a) a free electron moves on application of electric field (b) an electron breaks its covalent band (c) an atomic core moves (d) an electron reverts from conduction band to valence band

23. Forbidden energy gap between valence band and conduction band is least in the case of _____.
(a) mica (b) pure silicon (c) pure germanium (d) impure silicon

24. Donor impurity atom in a semiconductor result in new
(a) wide energy band (b) narrow energy band (c) discrete energy level just below conduction level (d) discrete energy level just above valence level

25. A P type semiconductor is _____.
(a) positively charged (b) negatively charged (c) electrically neutral (d) not used in semiconductor devices

26. Change of carrier concentration along the length of a semiconductor is called _____.
(a) mobility (b) diffusion (c) concentration gradient (d) drift

27. In a semiconductor, movement of charge carriers under influence of an electric field is called _____.
(a) diffusion (b) drift (c) mobility (d) conductivity

28. In pure silicon, major part of the drift current is due to free electrons because _____.
(a) there are more free electrons than holes (b) free electrons are in the valence band (c) mobility of electrons is greater than the mobility of holes (d) diffusion constant of electrons is greater than that of holes

29. Semiconductor may be made N type by adding donor impurity _____.
(a) during zone refining (b) during chemical purification (c) during crystal pulling (d) before purification process

30. One input terminal of high gain comparator circuit is grounded and a sinusoidal voltage is applied to the other

input. The output of comparator will be
(a) a sinusoidal (b) a full rectified sinusoidal (c) a half rectified sinusoidal (d) a square wave

Switchgear Protection

31. Different types of insulators used for transmission lines are _____.
(a) Pin type only (b) Suspension type only (c) Strain type only (d) Pin type, Suspension type and Shackle type

32. Which among these fuse is very fast in operation?
(a) Semiconductor fuses (b) High rupturing capacity type (c) Cartridge type (d) Kit Kat type

33. What is the factor of safety used for current ratings in a power installation?
(a) 1 (b) 1.5 (c) 1.75 (d) 2

34. Which among these is a method of wiring?
A. Joint box   B. Tee system
C. Loop in system
(a) Only A (b) Only B (c) Only A and C (d) A, B and C

35. What should be the value of earthing resistance for large power stations?
(a) 1 Ω (b) 0.5 Ω (c) 2 Ω (d) 5 Ω

36. What is the diameter of the GI pipe through which the earth wire needs to be taken out?
(a) 13 mm diameter (b) 15 mm diameter (c) 19 mm diameter (d) 6 mm diameter

37. Which set of rules are to be verified on completion of wiring on any new installation?
(a) Indian Electricity rules, 1950 (b) Indian Electricity rules, 1956 (c) Indian Electricity rules, 1960 (d) None of these

38. Which among these is a type of internal wiring?
A. Cleat wiring   B. Conduit wiring
C. CTS wiring
(a) only A (b) only B (c) Both B and C (d) A, B and C

39. What is the minimum permissible size of the earth continuity conductor?
(a) 6 sq. mm (b) 9 sq. mm (c) 11 sq. mm (d) 13 sq. mm

40. Is it possible to prevent by very fast operation of the switch the switching spark produced during switching off of an inductance?
(a) No, the faster the circuit is opened, the higher is the selfinduced voltage (b) Yes, as long as the circuit is opened

fast enough (c) Yes, as long as the switch can withstand the high switching speed (d) Yes, if the current is less than 50 A

41. Which among these is a type of batten wiring?
(a) Metal sheathed wiring (b) TRS or PVC wires (c) Both metal sheathed wiring and TRS or PVC wires (d) None of these

42. The minimum permissible size of the aluminum cable for lighting circuits is
(a) 1.1 sq. mm (b) 1.5 sq. mm (c) 2.4 sq. mm (d) 3.6 sq. mm

43. Which of the following distribution system is used for combined power and lightning load?
(a) Single phase 2wire AC system (b) Three phase, 3wire AC system (c) Three phase, 4wire AC system (d) None of these

44. Why is electric braking preferred?
(a) It is smooth (b) Its maintenance cost is less (c) The energy is saved in regenerating braking (d) All options are correct

45. The loop earth wire used shall not be of size less than _____.
(a) 8 SWG (b) 10 SWG (c) 20 SWG (d) 14 SWG (2.9 mm^2) or half of the size of the subcircuit wireQ

46. Third pin in a 3pin plug is provided so as to _____.
(a) provide an earth connection (b) provide a 3phase supply, when required (c) provide a spare phase when required (d) prevent the plug being reversed in the socket

47. Resistivity of earth increases sharply when moisture falls below
(a) 60% (b) 40% (c) 20% (d) 10%

■ ■ **ANSWER** ■ ■

1(c). 2(b). 3(b). 4(b). 5(b). 6(b). 7(a). 8(a). 9(d). 10(b). 11(c). 12(b). 13(c). 14(c). 15(d). 16(b). 17(a). 18(d). 19(d). 20(d). 21(a). 22(b). 23(d). 24(c). 25(c). 26(c). 27(b). 28(c). 29(c). 30(d). 31(d). 32(a). 33(d). 34(d). 35(b). 36(a). 37(b). 38(d). 39(a). 40(a). 41(c). 42(b). 43(c). 44(d). 45(d). 46(a). 47(c).

40 ASHA Worker
From Page 1

Dinajpur on contractual basis : Chopra, Islampur, Goalpokhar-I, Goalpokhar-II & Karandighi.

Married / Divorced / Widow women, who have appeared 10th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidate should be permanent resident of the concerned Village for which she intends to apply. Age should be between 30 and 40 years as on 11.12.2017. But for the candidates belonging to SC / ST category, age should be between 22 and 40 years as on 11.12.2017. Block wise vacancy is as follows : (i) Chopra Block : 06, (ii) Islampur Block : 16, (iii) Goalpokhar-I : 05, (iv) Goalpokhar-II : 01, (v) Karandighi : 12. Members of Self-help Group / Trained Dai / Link Workers will get preference.

Mode of Selection : Selection will be made primarily on the basis of marks obtained in the 10th standard examination. Shortlisted candidates will be called for Interview. The date, time & venue of the interview will be intimated in due course.

How to Apply : Candidates will have to apply on plain A-4 size paper as per the format given on this website : www.uttardinajpur.nic.in   The duly filled in application should be enclosed with the following documents : (1) 3 copies of passport size recent photographs (1 copy to be affixed on the top right hand box of the application form & other 2 copies to be enclosed), (2) Self-attested photostat copies of all Certificates & Mark Sheets in support of Date of Birth, Educational Qualification, Caste (for SC / ST / OBC), Disability (for Physically challenged candidates), Experience (if any), (4) Self-attested photostat copies of valid residential proof i.e. Voter ID & Ration Card. The envelope containing the duly filled in application should be superscribed as 'APPLICATION FOR THE POST OF ASHA'. The duly filled in application along with all requisite documents should be submitted within 28.12.2017 to the following address : The Member Secretary, ASHA Selection Committee, Office of the Block Development Officer, ...Block, P.O. ...., Dist. Uttar Dinjapur, PIN - ....

Name of the villages situated under the blocks is as follows : **(1) Chopra :** (i)Ambari (Gen), (ii) Gunjariagachh & Bamangachh & Kaliagachh (ST), (iii) Mohangachh (Gen), (iv)Alamgachh & Kashidanga (Gen), (v) Dolapara (Gen), (vi) Sitpara & Durgaqachh (ST). **(2) Islampur :** (i) Uttar Matikunda & Dangibasti & Sajjadpur (SC), (ii) Dastura & Purba Talbasti & Paschim Talbasti (Gen), (iii) Mirbasti Dhantala & Chania Basti (Gen), (iv) Paschim Dhantata Uttarbasti (Gen), (v) Maruagaon & Chargachia & Adibasipara (Gen), (vi) Agurasia Paschim & Agurasia Dakhin (Gen), (vii) Khekidangi & Hamidnagar & Noorvita (Gen), (viii) Dulalivita (SC), (ix) Palpara & Kalinagar & Betbari (SC), (x) Garandangi & Bichuvita (Gen), (xi) Bochavita & Gandhaktola (SC), (xii)

Khochabari & Jhabartola (Gen), (xiii) Singragachh & Gramtoli (Gen), (xiv) Kuchila (Gen), (xv) Kadokhoa & Barobari (Gen), (xvi) Bhatkunda (Gen). **(3) Goalpokhar-I :** (i) Rajpokhar (Gen), (ii) Kantigachh (Gen), (iii) Goabari (Gen), (iv) Deshbandhu Colony (SC), (v) Kata Fulbari (SC). **(4) Goalpokhar-II :** (i) Jhangartoli (Gen). **(5) Karandighi :** (i) Bamhol & Kurigaon (ST), (ii) Borua (SC), (iii) Bikhanpur Paschim (Gen), (iv) Bikhanpur Purba (Gen), (v) Bangalipur (Gen), (vi) Kismat Altap'ur (Gen), (vii) Salmari (Gen), (viii) Lodhipur (ST), (ix) Barol (Gen), (x) Bhatowar (ST), (xi) Miapara & Adibasipara (ST), (xii) Satveti (SC).

Source : Available on www.uttardinajpur.nic.in

125 Nurse
From Page 1

equivalent course as such B.Sc. (Post Certificate) Course in Nursing from any recognised University / Institute are also eligible. In addition to this qualification, candidates should be registered with the Indian / State Nursing Council as Nurse & Midwife. Candidates should have 3 years post qualification experience of working as Staff Nurse Grade-II of minimum 200 bedded hospital / healthcare institute. Ability to use computer with working experience in Office Applications, Spreadsheets & presentations is desirable. Age should be between 21 and 35 years. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Ex-Servicemen & Physically challenged candidates will get exemption in age as per the Govt. Rules.

Scale of Pay is Rs.9,300/- – 34,800/- with Grade Pay of Rs.4,800/-. Number of vacancy is 125 (UR : 65, OBC : 33, SC : 18, ST : 09).

Mode of Selection : Selection will be made on the basis of objective type Written Test followed by Interview. The date, time & venue of the test & interview will be intimated in due course.

How to Apply : Candidates will have to apply on-line through this website : www.aiimsrishikesh.edu.in   within 04.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. Before applying on-line, candidate will have to register his / her name by providing basic details. Thereafter, candidate will have to open the appropriate on-line application form to fill in all the required fields properly and upload his / her passport size recent coloured photograph & signature in specific digital format. After that, candidates will have to pay Rs.3,000/- (Rs.1,000/- for SC / ST / Physically challenged applicants) as application fee through on-line payment gateway. Thereafter, candidate will have to verify the data, what he / she put in the on-line application form. After verification, application should be submitted by clicking 'Submit' button. Afterwards, candidates are required to obtain the print-out of the computerised system generated application form for future purpose. Last

date for the submission of the on-line application is 4th January, 2018.

Source : Available on www.aiimsrishikesh.edu.in

16 Driver   From Page 1

examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have at least 3-years experience of driving light and heavy motor vehicle. Candidates should possess valid driving licence for light and heavy motor vehicle. Candidates should be conversant in Motor Mechanism and should be able to remove minor defects in vehicle. 3-years service as Home Guard or Civic Volunteer is desirable. Age should be between 18 and 27 years as on 22.01.2018. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Ex-Servicemen & Physically challenged candidates will get exemption in age as per the Govt. Rules. Scale of Pay is Rs. 19,900/-. Number of vacancy is 16 (UR : 08, SC : 02, ST : 02, OBC : 04).

Mode of Selection : Selection will be made on the basis of Driving Test to assess the ability to drive heavy and light motor vehicle. Date, time and venue of the test will be intimated to the candidates in due course.

How to Apply : Candidates will have to apply on plain A-4 size paper as per the format given below. Candidates may also download the application form from this website : www.indiapost.gov.in   The duly filled in application should be enclosed with the following documents : (1) 2 copies of attested passport size recent photographs (1 copy to be affixed on the top right hand box of the application form and other copy to be enclosed.), (2) Attested photostat copies of all Certificates & Mark Sheets in support of Date of Birth, Educational Qualification, Caste (for SC / ST / OBC), Disability (for Physically challenged candidates), Discharge (for Ex-Servicemen), Driving Experience. The envelope containing the duly filled in application should be superscribed as 'Application for the post of ......'. The duly filled in application alongwith all requisite documents must be sent by Registered / Speed Post so as to reach by 22.01.2018 to the following address : The Senior Manager, Mail Motor Services, 134-A, S.K. Ahire Marg, Worli, Mumbai-400018.
Advt No. BMS-B/2-8/Driver Rectt./XXVII/15 & 16-17/417.

Source : Available on www.indiapost.gov.in

Proforma of application is as follows :

Application should be submitted giving the follwing bio-data
PHOTO Attested by Gazetted Officer
i)   Full name (In block letters):
ii)   Father's full name:
iii) Post Applied for:
iv) Permanent Address:
v)   Address for correspondence With Pincode:
vi) Citizenship: Indian/Others (Tick)
vii) Date of Birth (By Christian Era):
     (In format-Day-Month-Year):DD_MM_YY_
viii)**Age as on 22.01.2018:**
     Year:__Months__Days:___
ix) Reservation Category : Mention proper
     community out of UR/SC/ST/OBC
x)   Category : ESM/Others (Tick)
     (ESM: Ex-serviceman)
xi) Educational Qualification:
xii) Issue of Driving License details with validity:
     (LMV & HMV separately)
     Date of Issue of Driving Licence:
     LMV :   Validity:
     Date of Issue of Driving Licence:
     HMV :   Validity:
xiii)Driving experience period:
     From: To:
     Name of Institution/firms etc:
xiv)Home Guard service: From: To:
xv) Any other relevant information:

48 Gr-D Staff   From Page 1

Board / Council are eligible for the post. Conversance with the duties of the respective trade with one year experience is desirable

Post : PA / Stenographer.

Candidates who have passed 12th standard examination

from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have shorthand speed of at least 100 w.p.m. and typing speed of at least 40 w.p.m.. Number of vacancy is 02 (UR).

Post : Clerk / LDC.

Candidates who have passed 12th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have typing speed of at least 35 w.p.m. (10500 kdph) in English or 30 wpm (9000 kdph) in Hindi on computer. Number of vacancy is 02 (UR).

Post : Ward Sahayika.

Candidates who have passed 10th standard examination from any recognised Board / Council are eligible for the post. Experience as a Dai in Family Wing or Civil Hospital or 3 years experience as a Dai in a Govt. Hospital is desirable. Number of vacancy is 02 (UR).

Post : Chef (Community).

Candidates who have passed 10th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have proficiency in the trade. Number of vacancy is 04 (UR : 03, OBC : 01).

For all Posts : Age should be between 18 and 27 years as on 30.12.2017. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Ex-Servicemen & Physically challenged candidates will get exemption in age as per the Govt. Rules. For the Posts of 'Chef (Community)' & 'Clerk / LDC', Pay Matrix will be Rs.19,900/-. and for the post of 'PA / Stenographer', Pay Matrix will be Rs.25,500/-. For all other posts, Pay Matrix will be Rs.18,000/-.

Mode of Selection : Selection will be made primarily on the basis of marks obtained in 10th Standard examination. Shortlisted candidates will be called for Written Test. Date, time and venue will be intimated to the candidates through Call Letter in due course.

How to Apply : Candidates will have to apply on plain A-4 size paper as per the format given below. The duly filled in application should be enclosed with the following documents : (1) 2 copies of passport size recent photographs (1 copy to be affixed on the top right hand box of the application form and other copy to be enclosed.), (2) self-addressed envelope with postage stamp of Rs.25/- affixed thereon, (3) Attested photostat copies of all Certificates & Mark Sheets in support of Date of Birth, Educational Qualification, Caste (for SC / ST / OBC), Disability (for Physically challenged candidates), Discharge (for Ex-Servicemen), Experience (if any). (4) Attested photostat copy of Adhar / PAN Card. (5) Attested photostat copy of Bonafied Certificate. The envelope containing the duly filled in application should be superscribed as 'APPLICATION FOR THE POST OF .... & CATEGORY UR/OBC/SC/ST. The duly filled in application alongwith all requisite documents must reach by 30.12.2017 to the following address : The Commanding Officer, 188 Military Hospital, PIN-900188, C/o 99 APO, Likabali (Assam).

The proforma of application is as follows :

APPLICATION FOR THE POST OF _____ & CATEGORY UR/OBC/SC/ST
1.   Full Name (in Block letters)
2.   Father's/Husand's Name
3.   Address for correspondence
4.   Date of birth (attach relevant certificate):
     D D M M Y Y Y Y
5.   Age on last date of application ..... years..... Months.... Days
6.   Domicile Certificate
7.   Religion with caste/sub-caste (attach relevant certificate)
     (please tick the applicable)
     UR OBC ST SC
8.   Education Qualification
9.   Technical Qualification and Experience
10. Permanent Home Address
11. Category for which applied (please tick the applicable
12. Marital status of candidate: Married/Unmarried
13. Contact Number

Affix a recent photograph & sign across the photograph

I, hereby declare that all the statement made in this application are true, complete and correct to the best of my knowledge and belief. In the event of any information being found false/ incorrect or ineligibility being detected before or after the written test/trade test. my candidature will stand automatically cancelled.

Place: Signature of Candidate
Date: Name:
NOTE: DO NOT FORWARD ORIGINAL CERTIFICATE WITH THE APPLICATION.

General English

In any language, grammar is very much dreadful and trouble making subject. In competitive exams, everyone will get only 30 seconds to find out the right answer. To augment the speed to answer, everyone have to know various tricks. The tricks to answer the different types of questions is discussed by **P. Roy** in every week.

30 Objective Q & A

Direction (Qs. 1-10): *Read the following passage carefully and answer the following questions. Certain words/phrases have been given in bold to help you locate them while answering some of the questions.* Once upon a time, there was a boy named Lenny. Lenny invented all kinds of contraptions. One day Lenny decided he wanted to fly. 'I am going to invent some wings and fly,' Lenny told his friend Rudy. 'You're crazy. You won't even get off the ground,' said Rudy. 'You'll see', said Lenny. So he went down to his workshop and began working. Day and night, he worked. No one saw Lenny for weeks. Then one day lie came out of his workshop with a great big grin on his face. He c Jled Rudy on the phone, 'Rudy, tomorrow I will fly, but I need your help.' said Lenny. 'Have you made wings?' asked Rudy. 'Yes,' said Ltnny. 'They're a little heavy though. I need you to help me drag them up to the top of Kill Devil Hill. I made them out of some scrap metal. I had Living around from when I built my helicopter last year,' said Lenny. 'Metal! Don't you think that will be too heavy to use for wings?' asked Rudy. 'No, I will be like a human airplane,' said Lenny. 'Ok, I will be over and we'll try them out,' said Rudy. The next morning they dragged the wings up to the top of the hill and Lenny strapped them on. 'The faster I run, the lighter they will get.

The wind will lift me up and I will be flying,' said Lenny, quite confidently. So, Lenny **backed up** about fifty feet and started running. As he ran, the weight of the wings started to **wear** out his legs and he got lower and lower to the ground. Just as he got to the **crest** of the hill, his legs gave out and he skidded across the ground on his face. 'I guess you may be right they are a little heavy, but I know the shape is just right. I will just go back to the workshop and make them out of something lighter,' said Lenny.

A couple of weeks later Lenny called up Rudy, 'I've done it,' said Lenny. 'I reworked the wings. I made them out of wood and tissue paper. These things are so light I may get going by simple jumping off the roof.' When Rudy arrived, Lenny was already up on the roof with these wings. Lenny backed up a little and took a quick dash and a jump. SMACK! The wings broke right off and Lenny landed on his head in the middle of some bushes next to the house. 'I guess they may have been a little weak, but I know the shape is just right. I will just go back to the workshop and make them out of something not as heavy as the scrap metal and not as light as the tissue paper,' said Lenny.

A couple of weeks later Lenny called up Rudy, 'I reworked the wings. I made them out of wax and balsa wood. These things just look like bird's wings. Meet me at Kill Devil Hill,' said Lenny. When Rudy arrived, he saw the wings. They did look good. Rudy helped him strap on the wings. Lenny backed up and began running towards the crest of the hill. He didn't slow down and just as he got to the edge of the hill, he started to lift up into the air. He was flying! He flew higher and higher. He was really getting high now, and he started to worry. 'How do I land these things'? he asked himself. That question was about to be answered. All of a sudden, he noticed that his wings were starting to melt. He had risen so high, that the sun was starting to melt the wax he used to make the wings. Pretty soon he had little tiny wings and he was flying about a hundred miles an hour down towards the woods. He crashed into the trees. Rudy ran up. 'Are you all right?" he asked. "Yeah, I think so, but I am definitely going to quit trying to fly. This is too rough on the body,' said Lenny.

1. Why could Lenny not fly the first time around with the wings he had designed ?
(A) These were not tied securely and fell off. (B) These were made of a material which melted in the rain. (C) These broke on jumping off the cliff. (D) These were too light to help cany his weight. (E) Other than those given as options.

2. Which of the following is true according to the story?
(A) Rudy too tried to fly with the help of Lenny's contraption (B) Rudy was as brilliant as Lenny when it came to inventing things (C) Lenny had to pay with his life in order for his dream to become a reality (D) Although Lenny did manage to fly in the end, he did not know how to land (E) All the given statements are true.

3. Choose the word which is most opposite in meaning to the word/s given in bold as used in the passage.
Backed up
(A) proceeded (B) protested (C) supported (D) topped (E) jumped

4. Which of the following can be the most appropriate title for the story?
(A) Lenny – The Flying Inventor (B) The Story of Rudy (C) The Failure Named Lenny (D) How to Make Airplanes (E) Flying Across a Cliff

5. Which of the following cannot be said about Lenny?
(I) Lenny successfully learnt from his mistakes and improved upon them. (II) Lenny sought Rudy's help several times so that he could use his wings to fly. (III) Lenny continued to make better wings for flying till the end of his life.
(A) Only I (B) Only I and II (C) Only III (D) All I, II and III (E) Only I and III

6. Choose the word which is most opposite in meaning to the word/s given in bold as used in the passage.
Crest
(A) depth (B) bottom (C) back (D) peak (E) feather

7. Which one of the following aspects of Lenny's personality comes across very strongly in the story?
(A) He was an extremely friendly person and made a lot of friends (B) He was physically very strong (C) He excelled at studies (D) His imagination was completely out of control (E) He was determined and focused.

8. Choose the word which is most similar in meaning to the word/s given in bold as used in the passage.
Rough
(A) smooth (B) coarse (C) uneven (D) harsh (E) spotted

9. Which of the following can be said about Rudy?
(I) He was in fact jealous of Lenny (II) He was a supportive friend (III) He never once questioned Lenny's ideas.
(A) Only I (B) Only II (C) Only III (D) All I , II and III (E) Only I and II

10. Choose the word which is most similar in meaning to the word/s given in bold as used in the passage.
Wear
(A) sport (B) bear (C) tire (D) don (E) display

Direction (Qs. 11-20) : *Read the following passage and answer the given questions. Certain words or phrases are given in bold to help you locate them while answering some of the questions.*

Stocks of grain and other foods are high, with another bumper harvest due in the northern hemisphere this year. The number of hungry people has been falling too, by 167 million in the past decade, according to the UN's Food and Agriculture Organisation (FAO), chiefly thanks to progress in China and India. Yet that leaves nearly 800 million, a third of which are in Africa, The UN reckons that one measure, 'prevalence of undernourishment' has the dropped from 18.6% of the world population in 1990-92 to 10.9% now. That broadly meets a target the world set itself in 2000, in the Millennium Development Goals. But international bodies such as the G7 are worried about the coming decades. The world's population will exceed nine billion in 2050, with most of the growth in developing countries. The United States Department of Agriculture reckons that the number of hungry ('food insecure') people in sub-Sa-haran Africa will rise by a third. The FAO reckons that food production will need to increase by 70%. Worries abound. Crop yields are flat. And many trends are negative: new crop diseases, urbanisation, desertification, salinisation and soil erosion, which outstrips renewal even in developed countries. That does not mean disaster is looming. Agricultural productivity is often shockingly low in 'tradition-1' farming practices. That leaves llenty of room for improvement. But in most kinds of agriculture, scarce water can be used more sensibly. A tudy by Britain's Institution of Mechanical Engineers estimated that 550 billion litres of water are wasted annually in crop production. Eliminating waste, for example by dripfeed irrigation, could raise food projection by 60% or more. Phosphorus (a finite resource, unlike water) is wasted too : only a fifth of the phosphorus mined actually ends up in food. Climate change will indeed hurt some farmers but help others (so, perhaps, does more carbon dioxide in the atmosphere). Genetically Modified (GM) crops (such as drought-resistant rice, heat-resistant maize or blight-resistant wheat) have huge **potential**. Technology is only part of the solution. The food chain lacks resilience to other forms of disruption too, from political strife to consumer panics. Panics about contamination (real or imagined), for example, can send food flying off the shelves. A new report by Lloyds of London Insurance market highlights the need for more innovation to help farmers and food manufacturers deal with adverse weather and other potential risks.

The Gulf countries have long been preoccupied by the question of how to feed their people. The region's population is expected to grow by 40% between 2010 and 2030. Some gulf countries import as much as 10% of their food. Their governments have been unsure of the best way to keep everyone fed-> and content. Qatar reportedly declared that it would produce 70% of its food at home by 2023, by adopting new technologies of desalination and hydroponics. Adding a layer of the hydroponic sand under the topsoil stops water from reaching away, making it easier to grow crops in odd climates or in water-scarce lands. Agricultural entrepreneurs reckon that such innovation could allow the country to grow more of its own food. That idea was soon dropped. Saudi Arabia, with the busiest farm sector among the six countries of the Gulf Co-operation Council, scaled back wheat grown by irrigation because it was draining non-renewable aquifers. Heavy reliance on imports is problematic when countries such as Argentina suddenly restrict their exports in response to rising prices. Buying farmland in countries such as Sudan, Tanzania and Pakistan is another Gulf ploy. The UAE and Saudi Arabia are among the top ten investors in land abroad, according to Land Matrix, a body that **tracks** such deals. But this has drawbacks, too. Getting big projects off the ground in places that lack infrastructure is tricky. Many of the region's rulers are now considering investing in food companies abroad, often in more developed countries. The UAE's Al Dahra Agriculture, which works closely with the government and owns land abroad, recently bought eight farm companies to Serbia for $400m. It has also invested in an Indian rice producer. In addition, countries like Saudi Arabia are looking at ways of keeping strategic food reserves. Gulf rulers may end up following a mixture of such strategies to fill their peoples' stomachs. They should at least be commended for grappling with the problem, says a regional food expert. Poorer and hungrier Arab countries, like Egypt and Yemen, are far less willing to address it.

11. Why has the author mentioned the example of Qatar in the passage?
(I) To illustrate how increased dependence on foreign food imports backfires. (II) It demonstrates the tremendous impact climate change has on agriculture which is going unnoticed. (III) To show that some countries are innovative and making tremendous efforts to improve agriculture.
(A) Only I (B) Only III (C) Only II and III (D) Only I and III (E) All three I, II and III

12. Which of the following is the SAME in meaning as the word FIAT as used in the passage?
(A) categorical (B) totally (C) unvarying (D) pre-determined (E) All the given options

13. Which of the following can be said about agriculture in Gulf countries?
(I) Though genetically modified such food has proven more nutritious. (II) Some countries are highly dependent on food imports. (III) It is a tricky issue to address and needs a variety of remedies.
(A) Only (I) (B) Only (II) (C) Only III (D) Only I and III (E) All three I, II and III

14. Which of the following is the OPPOSITE of the word DROPPED as used in the passage?
(A) upheld (B) sustained (C) supported (D) backed (E) All the given options

15. Which of the following is/are (a) theme(s) of the passage?
(A) Factors impacting food production (B) Food security in gulf countries (C) Challenges to agricultural productivity even in developed countries (D) Wastage of water resources (E) All the given options are themes

16. Which of the following best describes the author's view of the global food situation?
(A) The world has been successful to an extent in addressing the issue of hunger (B) There is a food crisis imminent in the coming decades (C) Countries cannot rely solely on imports to meet their food needs (D) Technology can be harnessed to address the issue of food security (E) All the given options

Probable Questions for IBPS Specialist Officer, IBPS Clerk (Main)-2017

Tricks for Rapid Answer
For all Competitive Examinations

Be it for employment or for admission to professional courses, the competitive written exam. has become the primary mode of selection now-a-days. Every eligible candidate has to face this keen competition. To succeed in this competitive exam. timing is a great factor. Everyone will get only 30 seconds to find out the right answer of each question. To augment the speed to answer, knowledge of tricks is essential. The various tricks to answer the questions of two essential subjects in time are discussed below. The tricks of different types is discussed by **P. Roy** in every week.

TEST OF QUANTITATIVE APTITUDE

1. The average age of a husband and wife was 23 years when they were married 5 years ago. The average age of the husband, the wife and a child who was born during the interval, is 20 years now. How old is the child now?
(A) 9 months (B) 1 year
(C) 3 years (D) 4 years (E) 6 years

2. The ratio between the ages of a father and a son at present is 5 :2 respectively. Four years hence the ratio between the ages of the son and his mother will be 1 : 2 respectively. What is the ratio between the present ages of the father and the mother respectively?
(A) 3 : 4 (B) 5 : 4 (C) 4 : 3
(D) Cannot be determined (E) 6 : 5

3. Total distance between A and B is d km. The distance travelled along the stream is three times of the total distance and the distance travelled against the stream is two times of the total distance. The time taken to cover distance along the stream is 10% less than the time taken to cover the distance against the stream. If a person covers a distance of 21 km in 1 hour 24 minutes along the stream, then find the rate of current?
(A) 2 km./hr. (B) 3 km./hr. (C) 1 km./hr.
(D) 4 km./hr. (E) 5 km./hr.

4. P and Q started a business by investing Rs. 15,000 and Rs. 18,000 respectively. After four months R joined them with a capital of Rs. 10,000. After two more months Q left the business with his capital. At the end of the year P got a share of Rs. 4,500 in the profit. What is the total profit earned?
(A) Rs. 6,800 (B) Rs. 7,600 (C) Rs. 8,600
(D) Rs. 9,200 (E) Rs. 9,600

5. Inside a square plot a circular garden is developed which exactly fits in the square plot and the diameter of the garden is is equal to the side of the square plot which is 28 metre. What is the area of the space left out in the square after developing the garden?
(A) 98 metre^2 (B) 146 metre^2
(C) 84 metre^2 (D) 168 metre^2
(E) 115 metre^2

Direction (Qs. 6-10): Given below is the information regarding to the result of 3 students Animesh, Sushant, Kundan in internal exams of class 10th. Read it carefully and answer the following questions:

There are total 5 subjects i.e. Subject A, Subject B, Subject C, Subject D, and Subject E each carrying different maximum marks. Subject A and Subject B both carries equal maximum marks i.e. 35. Subject C carries maximum marks 5 more than Subject A and 10 more than Subject D. Total of maximum marks of the 5 subjects is 160. Kundan scored 60% in Subject A, while Sushant scored in the same subject. Animesh scored only 13.5 marks in Subject A. Animesh scored 24 marks in Subject B which is 60% more than the marks scored by Sushant in the same subject. The total of the marks of 3 students in Subject B is 58, Kundan scored 15.5 marks in Subject C, while Sushant scored 35% in the same subject and Animesh scored highest in Subject C with 29 marks. Animesh scored 40% in Subject D which is less than the marks of Sushant in the same subject. Score of Kundan in Subject D is 14 marks. The sum of marks of Animesh and Sushant in Subject E is 32 while the ratio of the same is 9 : 7. Kundan scored 77.5% marks in Subject E.

6. What is the average marks scored by the 3 students in Subject D ? (round off to nearest integer)
(A) 11 (B) 14 (C) 18 (D) 15 (E) None of these

7. Find the difference between total marks scored by Animesh in all subjects and the total marks scored by Sushant in all subjects together.
(A) 12 (B) 18.5 (C) 17
(D) 21 (E) None of these

8. Calculate the percentage of marks obtained by Kundan in all the given subjects.
(A) 50.5% (B) 52.25% (C) 53.125%
(D) 53.75% (E) None of these

9. Marks of Sushant in Subject D and Subject C together is what percent more or less than the marks of all the 3 students in Subject E ? (round off to 2 decimal places).
(A) 32.63% (B) 33.33% (C) 35.63%
(D) 36.63% (E) 38.63%

10. If the passing marks in each internal exam are 40%, then total number of compartment of all students together?
(A) 1 (B) 2 (C) 3 (D) 4 (E) 5

Direction (Qs. 11-15): Study the table and answer the given questions.

Data regarding number of students who appeared for a given test from 5 schools – A, B, C, D and E.

School	Number of females who appeared	Ratio of number of females and males who appeared
A	520	13 : 10
B	450	3 : 2
C	330	3 : 5
D	420	7 : 8
E	300	4 : 5

11. What was the respective ratio of the difference between the number of students (males and females) appearing from Schools A and C and those appearing from Schools B and D?
(A) 4:3 (B) 6:5 (C) 7:6 (D) 5 : 3 (E) 5 : 4

12. In School B, if the number of males and females who failed the test was 'x' each and the respective ratio between the number of males and females who passed the test was 5 : 8, what was the value of x ?
(A) 75 (B) 60 (C) 45 (D) 80 (E) 50

13. Total number of students (males and females) appearing from School D was by what per cent more than those from School E?
(A) $14\frac{8}{9}$ (B) $15\frac{5}{9}$ (C) $18\frac{1}{9}$
(D) $17\frac{7}{9}$ (E) $13\frac{1}{3}$

14. What was the average number of males who appeared from Schools B, D and E?
(A) 350 (B) 345 (C) 355 (D) 340 (E) 335

15. What was the difference between the total number of females appearing from Schools A and C together and that of males appearing from the same Schools together ?
(A) 120 (B) 100 (C) 90 (D) 130 (E) 110

Direction (Qs. 16-20) : What approximate value will come in place of the question mark (?) in the given questions? (You are not expected to calculate the exact value.)

16. $1440 \div \sqrt{145} + 44.85 - ? = 21.92 \times 5.04$
(A) 55 (B) 60 (C) 75 (D) 70 (E) 65

17. 59.94% of $(? \times 8.03) - \sqrt{4227} = 6.92$
(A) 8 (B) 10 (C) 15 (D) 28 (E) 22

18. $\dfrac{39.97 \times \sqrt{?}}{55.88} = 5^2$
(A) 625 (B) 25 (C) 1225 (D) 35 (E) 1025

19. $3089.92 - 930.02 - ? = 21.92 \times 49.93$
(A) 1,030 (B) 900 (C) 1,060
(D) 1,080 (E) 920

20. $\dfrac{1563.96 + 1636.09}{2^3} = ?^2$
(A) 28 (B) 20 (C) 18 (D) 16 (E) 14

Direction (Qs. 21-25): In the following questions, two equations numbered I and II are given. You have to solve both the equations and

Give answer	If
(A)	x < y
(B)	x > y
(C)	x ≤ y
(D)	x ≥ y
(E)	x = y or the relationship cannot be established

21. I. $x^2 - 3x - 40 = 0$ II. $y^2 - 15y + 54 = 0$
22. I. $2x^2 + 7x + 5 = 0$ II. $5y^2 + 9y + 4 = 0$
23. I. $x^2 - 21x + 38 = 0$ II. $y^2 - 11y + 28 = 0$
24. I. $(x + 13)^2 = 0$ II. $y^2 + y - 56 = 0$
25. I. $9x^2 - 18x + 8 = 0$ II. $3y^2 - 10y + 8 = 0$

26. Radha invests certain sums in scheme A (for 6 years) and B (for 5 years) both offering simple interest. The sum invested in scheme B was 25% less than that in scheme A. The interests received from both the schemes are equal. If the interest offered by scheme A is 10% per annum what is the rate of interest (per annum) offered by scheme B?
(A) 12% (B) 20% (C) 16%
(D) 15% (E) 18%

27. The present age of B is three years

more than half of A's age six years ago. The respective ratio between A's age nine years ago and B's age six years ago is 9 : 4. What is B's present age?
(A) 14years (B) 32years (C) 19 years
(D) 22 years (E) 18 years

ANSWERS WITH EXPLANATORY NOTES

1(D). Sum of present ages of husband and wife = (23 × 2 + 10) years = 56 years
Sum of present ages of husband, wife and child = 60 years
∴ Child's present age = 60 – 56 = 4 years.

2(D). Father's present age = 5x years
Son's present age = 2x years 4 years hence,
Mother's age = 2y years
Son's age = y years
∴ y = 2x + 4
Mother's present age = 2y – 4 = 2 (2x + 4) – 4 = 8x+4
∴ Father : Mother = 5x : 8x + 4

3(B). Rate downstream
$$= \dfrac{21}{1\frac{24}{26}}\ km/hr. = \dfrac{21 \times 5}{7} = 15\ km/hr.$$
If the speed of current be x km/hr, then
Rate upstream = (15 – 2x) km/hr.
According to the question,
$$\dfrac{10}{9} \times \dfrac{3d}{15} = \dfrac{2d}{15 - 2x}$$
$$\Rightarrow \dfrac{2}{9} = \dfrac{2}{15 - 2x}$$
$$\Rightarrow 15 - 2x = 9$$
$$\Rightarrow 2x = 15 - 9 = 6$$
$$\Rightarrow x = 3\ km/hr.$$

4(D). Ratio of the equivalent capitals of P, Q and R for 1 month = 15000 × 12 : 18000 × 6 : 10000 × 8
= 15 × 12 : 18 × 6 : 10 × 8 = 45 : 27 : 20
Sum of the terms of ratio = 45 + 27 + 20 = 92
If total annual profit be Rs. x, then P's share $= \dfrac{45}{92}x = $ 4500
$$\Rightarrow x = \dfrac{4500 \times 92}{45} = Rs.\ 9200.$$

5(D).

AB = 28 metre
Radius of circle = 14 metre
Area of circular garden = πr^2
$$= \dfrac{22}{7} \times 14 \times 14$$
= 616 sq. metre
Area of square plot = 28 × 28
= 784 sq. metre
∴ Area of shaded region
= (784 – 616) sq. metre
= 168 sq. metre.

6(D).

	Subject A (35)	Subject B (35)	Subject C(40)	Subject D (30)	Subject E (20)
Animesh	13.5	24	29	12	18
Sushant	17	15	14	18	14
Kundan	21	19	15.5	14	15.5

Required average $= \dfrac{12 + 18 + 14}{3} = 15$

7(B). Required difference = 96.5 – 78 = 18.5

8(C). Required percentage $= \dfrac{85}{160} \times 100 = 53.125\%$

9(A). Required percentage $= \dfrac{47.5 - 32}{47.5} \times 100 = 32.63\%$

10(C). Total compartment = 3
Animesh in Subject A , Sushant& Kundan in Subject C

11(A). Males who appear in the test

Tricks for Rapid Answer
Test of Reasoning Ability

In every competitive written examination 'Test of Reasoning Ability' is an essential part. Everyone will get only 30 seconds to find out the right answer. To augment the speed to answer, everyone have to know various tricks. The tricks to answer the different types of questions is discussed by **P. Roy** in every week.

Direction (Qs. 1-5): *Study the following information carefully and answer the questions given below :*

In an apartment, eight persons, i.e., D, E, F, G, H, I, J and K live on different floors but not necessarily in the same order. The lowermost floor of the building is numbered 1 and the topmost floor of the building is numbered 8. They are from different stream of Engineering i.e., Chemical Engineering Instrumentation Engineering, Software Engineering, Aeronautical Engineering, Mechanical Engineering, Electrical Engineering, Automobile Engineering, and Civil Engineering.

The one who lives on fourth floor is specialized in Mechanical Engineering. D lives on odd numbered floor but above 3rd floor. The number of persons between D and the one who is specialized in Electrical Engineering is same as number of persons between D and I. The one who is specialized in Instrumentation Engineering lives on lowermost floor. K lives on an even numbered floor and he is specialized in Automobile Engineering. There are two floors between E and H and E lives above to H. E is specialized in Aeronautical Engineering. J lives just above the one who is specialized in Aeronautical Engineering. The number of floors between the one who is specialized in Aeronautical Engineering and Mechanical Engineering is two. The one who is specialized in Civil Engineering lives on odd numbered floor. The number of floors between the one who is specialized in Chemical Engineering and J is four. The one who is specialized in Aeronautical Engineering lives on an odd numbered floor. The number of floors between the one who is specialized in Civil Engineering and the floor on which F lives is same as the number of floors between F and G. I lives below the floor on which D lives.

1. How many persons live between the person who is specialized in Chemical Engineering and the one who is specialized in Electrical Engineering?
   (A) Six (B) One (C) Four
   (D) Two (E) None of these

2. J is specialized in which of the following stream of engineering?
   (A) Aeronautical Engineering
   (B) Electrical Engineering
   (C) Civil Engineering
   (D) Instrumentation Engineering
   (E) Mechanical Engineering

3. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?
   (A) G (B) K (C) H
   (D) I (E) J

4. D lives on which floor?
   (A) 1 (B) 3 (C) 4
   (D) 5 (E) 7

5. G is related to Mechanical Engineering, in the same way as F is related to Automobile Engineering. Then, which of the following is H related to? (Following the same pattern)
   (A) Mechanical Engineering
   (B) Electrical Engineering
   (C) Civil Engineering
   (D) Instrumentation Engineering
   (E) Aeronautical Engineering

Direction (Qs. 6-10): *Study the following information carefully and answer the questions given below.:*

Eight people viz. A, B, C, D, P, Q, R and S are sitting in a straight line. They all are facihgnbrth.' Each one of them has a different age i.e. 14,16,17,19, 21. 23, 26 and 31 year, but not necessarily in the same order.

B sits at one of the extreme end of the row. There are three persons sitting between C and Q. Q is of neither 14 nor 19 years old. There are two persons sitting between D and the person whose age is 23 years. Neither Q nor D is the oldest person. Age difference of immediate neighbours of D is 5 years. A sits to the right of R, but not immediate right. There are three persons sitting between B and the one whose age is 16 years. The one whose age is 19 years sits third to the right of C. R sits to the right of B. Q sits second to the right of the person whose age is 23 years. P sits immediate left of the person whose age is 14 years. Q is not youngest person. The one, whose age is 31 years is not an immediate neighbour of the youngest person. C is not the fourth oldest person.

6. Who sits second to the right of D?
   (A) A (B) S (C) P
   (D) R (E) None of these

7. How many persons sit between the persons whose age is 31 years and S?
   (A) Four (B) Five (C) Three
   (D) One (E) None of these

8. Who among the following persons is 26 years old?
   (A) R (B) D (C) C
   (D) S (E) None of these

9. If P is related to 16 years in the same way as B is related to 26 years, then which of the following is R related to, following the same pattern?
   (A) 19 year (B) 17 year (C) 21 year
   (D) 31 year (E) None of these

10. What is the age difference of A's immediate neighbours?
    (A) Three (B) Seven (C) Five
    (D) Six (E) None of these

Direction (Qs. 11-15): *Study the following information carefully and answer the questions given below :*

There are seven persons P, Q, R, S, T, U and V who were born on the same day of the same month of different years i.e., 1984. 1946, 1967, 1972, 1982, 1989 and 1992 but not necessarily in the same order.

Note : (A) All calculations are done With respect to the present year 2017 assuming the month and date to be the same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

The difference between the ages of Q and R is twice the square root of the age of one of the any seven persons. Difference between the ages of R and S is the same as the number obtained by dividing ages of any of the other five persons. Age of P is greatest amongst those whose ages are multiples of five. T is older than V who is not the youngest. R is not youngest person. S was not born in 1992.

11. Who amongst the following persons is the oldest?
    (A) P (B) V (C) U
    (D) T (E) None of these

12. What is the age of R?
    (A) 33 years (B) 35 years (C) 25 years
    (D) 45 years (E) 50 years

13. How many persons are younger than U?
    (A) One (B) Two (C) Three
    (D) Four (E) None of these

14. What is the age of S?
    (A) 45 years (B) 35 years (C) 33 years
    (D) 50 years (E) 28 years

15. Who was born in 1989?
    (A) V (B) U (C) T (D) P (E) Q

Direction (Qs. 16 & 17): *Study the following information carefully and answer the questions given below :*

There are six family members A, B, C, D, E and F and all of them are of different age. A is younger than only one person. E is older than B and D but not as old as A. D is older than only one person. F is youngest in the family. The age of D is 25 year and the age of person who is second oldest is 40 year.

16. Who is the oldest in the family?
    (A) C (B) D (C) D (D) E (E) A

17. What is the possible age of B?
    (A) 42 years (B) 20 years (C) 55 years
    (D) 19 years (E) 30 years

18. Which of the following statements shows 'A ≥ R' and 'B < C' holds definitely true?
    (A) B ≤ C = A ≥ K = R (B) C = K > B < R ≥ A
    (C) C > B > A ≥ R (D) B = K < C < R = A
    (E) None of these

Direction (Qs. 19-23): *Study the following information carefully and answer the questions given below :*

Eight persons M, N, O, V, W, X, Y and Z attend seminars on different months of the year viz. March, June, October tmd November, such that not more than two persons attend their seminars in each of the months. Seminars can be held on either 10th or 27th day of the month. No two seminars can be held on the same day.

W and N attend the seminars on the same month. There are three seminars between the seminars of X and O. W does not attend their seminar in November. Z attends his seminar immediately after N. V attends his seminar in the month of November. The number of persons who attend their seminars between the seminars of Y and Z respectively is the same as the number of persons who attend their seminars between the seminars of N and V respectively. X does not attend the seminar on October. W attends his seminar before N.

19. M attends his seminar on which of the following dates?
    (A) 10th October (B) 27th November
    (C) 10th November

    (D) 10th March (E) None of these

20. Which of the following persons attends his seminar on 27th March?
    (A) W (B) X (C) M
    (D) N (E) None of these

21. How many persons attend the seminar after W?
    (A) 5 (B) 4 (C) 6
    (D) 3 (E) None of these

22. Who among the following persons attends the seminar on 10th October?
    (A) W (B) M (C) Z
    (D) V (E) None of these

23. How many persons attended seminar after V?
    (A) 5 (B) 4 (C) 7
    (D) None (E) None of these

Direction (Qs. 24-26): *In these questions, relationship between different elements is shown in the statements. The statements are followed by two Conclusions numbered I and II. Study the Conclusions based on the given statements and select the appropriate answer :*

Give answer **(A)** if neither Conclusion I nor Conclusion II is true.

Give answer **(B)** if both the Conclusion I and Conclusion II are true.

Give answer **(C)** if only Conclusion I is true

Give answer **(D)** if only Conclusion II is true.

Give answer **(E)** if either Conclusion I or Conclusion II is true.

24. **Statements :** M > U > L ≤ N ;
    L ≥ Y > A
    Conclusions : I. Y < N **II.** Y = N

25. **Statements :** J ≥ A > D = E ;
    L < A < M
    Conclusions : I. M < J **II.** J > L

26. **Statements :** M ≤ K > L = Y;
    P ≤ T > M
    Conclusions : I. P > Y **II.** T < L

27. In a vertical row 13 persons are sitting. A is seventh from the beginning and two persons sits between G and A. The number of persons between A and L is same as the number of persons between G and Q. Then what is the position of Q from the beginning?
    (A) Fourth (B) Eighth (C) Sixth
    (D) Ninth (E) Cannot be determined

28. A man walks 12 metre east from point A and reaches point B. From point B he takes left turn and walks 4 metre and then he takes right turn and walked 6 metre and again he takes right turn and walks 7 metre and again takes right turn and reaches point M. If it is given that point B is in north from point M, then what is the distance between B and M?
    (A) 7 metre (B) 6 metre (C) 5 metre
    (D) 4 metre (E) 3 metre

ANSWERS WITH EXPLANATORY NOTES

(1-5) :
On the basis of the above information, the following table can be constructed:

Floor Number	Person	Specialisation
8	J	Electrical Engineering
7	E	Aeronautical Engineering
6		
5	D	
4	H	Mechanical Engineering
3		Chemical Engineering
2		
1		Instrumentation Engineering

● The one who is specialised in Civil Engineering lives on an odd numbered floor. Thus, D is specialised in Civil Engineering. The number of floors between the one who is specialised in Civil Engineering and the floor on which F lives is same as the number of floors between F and G. Therefore, F would occupy floor number three and G would occupy floor number one

● I lives below the floor on which D lives. Therefore, I would occupy floor number two. **Contd. on Page 10**

General Studies
Answer in one word for the questions of Civil Services, Banks, SSC & Other Exams

Current Affairs

1. Which union ministry has recently signed MoU with Rotary India to achieve immunization target — Ministry of Health & Family Welfare.

2. Who has been recently chosen for the 27th edition of Vyas Samman-2017 — Mamta Kalia.

3. Which Indian monument has been recently named 2nd best UNESCO World Heritage site in the world, as per new survey of travel portal 'TripAdvisor' — Taj Mahal.

4. Which country will be the new member of Wassenaar Arrangement — India.

5. Which state govt. has recently issued an ordinance rising the minimum age of liquor consumption from 21 to 23 — Kerala.

6. Who is the first International Ambassador in UK who will be tasked with promoting investment opportunities — Deepak Parekh.

7. Who has been recently elected as the new chairman of the Broadcast Audience Research Council India — Nakul Chopra.

8. Which state govt. has recently decided to recognise political prisoners held in jails during emergency as 'Loktantra Sainani' — Rajasthan.

9. Which railway station has become the first energy-efficient 'A1-Category' railway station in India — Kacheguda Railway station in Hyderabad.

10. In which state India's first mobile food testing laboratory was recently unveiled — Goa.

11. India has recently declared itself free from which infectious disease that can cause blindness or sometimes visual impairment — Trachoma.

12. India has recently inked MoU with which country to set up a centre for excellence in Floriculture in Tamil Nadu — Israel.

13. Which country was recently joined International Solar Alliance — Australia.

14. In which country the world's heaviest bony fish weighing 2,300 kilogram was recently caught — Japan.

15. Which state govt. has recently decided to offer cash rewards & urban local bodies for making their respective areas plastic-free — Maharashtra.

16. Who is the winner of the 'Atibadi Jagannath Das Samman' instituted by the Odisha Sahitya Akademi for the year 2017 — Rabi Singh.

17. Which Indian city has recently inked MoU with the C40 cities network to work together to tackle Air Pollution — Bengaluru.

18. Who was named as the Person of the Year-2017 by the Time Magazine — 'The Silence Breakers'.

19. US President Donald Trump has recently recognised which city formally as the Capital of Israel — Jerusalem.

20. Which city of Kerala has been recently listed in the United Nations' report of 5 global cities that have successfully tackled solid waste management — Alappuzha.

21. To eliminate which disease Union Ministry has recently unveiled a 15 day door to door campaign across the country — Tuberculosis.

22. Who has won the best actress award in 'Star Screen Awards-2017' — Vidya Balan.

23. Who has been recently named the highest earning musician of 2017 by Forbes Magazine without releasing much music — Sean John Combs (also known as Diddy).

24. To which Armed Forces, President Ram Nath Kovind awarded 'Presidential Colours' to its submarine arm — Indian Navy.

25. Which country has recently founded the world's biggest automated container terminal — Peoples' Republic of China.

26. Which state govt. will unveil a digital platform 'Seva Sindhu' for hassle free governance — Karnataka.

27. Which state has become the India's first state to offer free e-mail address in Hindi to its residents — Rajasthan.

28. Which state govt. has recently unveiled 'Safe City Surveillance' scheme for checking crime against women at public places — Bihar.

29. Which word was named as the Word of the Year-2017 by the Merriam-Webster Dictionary — 'Feminism'.

History

30. In which Veda, the division of the Vedic Society into four classes is clearly mentioned — Purusa-sikta of Rigveda.

31. What was the most common animal figure found at all the Harappan sites — Unihorn Bull.

32. In which reign the first metallic coin used in India — The Indo-Gangetic plain of Central India.

33. Where was the first Buddhist Council was held at — Rajgriha.

34. How many hymns are found there in the Rig veda — 1028.

35. The Harappans did not know the use of which metal — Iron.

36. Who was the first ruler of Satavahanas — Simuka.

37. Who erected the Garuda Pillar at Besnagar — Bhagabhadra.

38. Who was the leader of the Kol Revolt in 1831-32 — Buddhu Bhagat.

Science & Technology

39. What is the name of the company which built world's biggest lithium-ion battery in Australian Outback — Tesla.

40. Scientists of which country had discovered a new species of mersupial lion that has been extinct for atleast 19 million years — Australia.

41. Who is the Father of DNA Fingerprinting in India — Lalji Singh.

42. Which Arab country has recently launched its first space programme aimed at sending 4 astronauts to the International Space Station within 5 years — United Arab Emirates.

43. Where is the head quarter of International Campaign to Abolish Nuclear Weapons located — Geneva.

44. Which noble gas is used in airport landing lights and in lighthouses — Krypton.

45. Who discovered the phenomenon of Radioactivity — Henri Becquerel.

46. Which plant is referred to as the 'pollution Indicator' — Lichen.

47. Which is the first indigenously built Scorpene-class submarine to be commissioned into the Indian Navy — INS Kalvari.

Geography

48. In which state Darrah National Park is located — Rajasthan.

49. What is the name of the capital city of Cuba — Havan.

50. Malampuzha Dam is constructed across which river — Bharathappuzha river.

51. Which is the largest reservoir in Kerala — Malampuzha Dam.

52. Which is the Capital of Iceland — Reykjavik.

53. In which state Coringa wildlife sanctuary is located — Andhra Pradesh.

54. Where is the headquarter of International Civil Aviation Organization located — Montreal, Canada.

55. 'Fugdi' is the famous folk dance of which Indian state — Goa.

56. When is the International Mountain Day is observed — 11th December.

57. Which is the tallest mountain in the British Antarctic Territory — Mt. Hope.

58. In which state Sultanpur National Park is located — Haryana.

59. What is the capital of Iran — Tehran.

60. On which date National Energy Conservation day is observed in India — 14th November.

Sports

61. How many total countries are there as a part of International Tennis Federatrion — 211.

62. Who has been recently appointed as the Performance Director for women's Boxing in India — Raffaele Bergamasco.

63. Who has become the first Indian to win gold at the World Para Swimming Championship-2017 — Kanchanmala Pande.

64. Who has been recently appointed as the President of Para-Sports Foundation — Sarvesh Kumar Tewari.

65. Who is the President of International Hockey Federation at present — Narinder Batra.

66. Who was recently appointed as the Head Coach of Sri Lanka National Cricket Team — Chandika Hathurusingha.

67. From which country's Football Federation the 2 years ban has officially been lifted — Kuwait.

68. Who became the first Indian shooters to secure the women's and men's quota places for the Youth Olympic Games-2018 — Mehuli Ghosh and Tushar Mane.

69. Which country's team has clinched bronze at the Hockey World League tournament — India.

70. By defeating Argentina which country has won Gold medal in the Hockey World League 2015-16 — Australia.

71. Who has won bronze medal in the men's 10m Air Pistol at the 10th Asian Championship 2017 — Jitu Rai.

72. Which Indian cricket player has recently created history by becoming the first batsman to score three double centuries in one day international matches — Rohit Sharma.

Political Science

73. Who has been recently appointed as the new Ambassador of India to Turkmen-e-stan — Azar A.H.Khan.

74. Which former Indian President's Birthday is observed as National Agricultural Education Day on 3rd December every year — Rajendra Prasad.

75. Who was recently elected as the President of Indian National Congress — Rahul Gandhi.

76. Who has been recently appointed as the Ambassador of India to the state of Kuwait — Jeeva Sagar.

77. Who is the Prime Minister of Kuwait at present — Jaber Al-Mubarak Al-Hamad Al-Sabah.

78. Who is the Prime Minister of Iraq at present — Haider Jawad Kadhim Al-Abadi.

79. Who is the Chief Minister of Chhattisgarh at present — Raman Singh.

80. Which article of the Indian Constitution ensures the equality of opportunity in matters of public employment to all Indians — Article 16.

Economics

81. What is the name of the currency of Cuba — Peso.

82. Financial services commission has recently opened its representative office in which Indian city — Mumbai.

83. Which state govt. has recently inked a MoU with the MNC Hewlett Packard to provide tele medicine facilities in the remote ares of that state — Uttarakhand.

84. What is the name of the currency of Somalia — Somali Shilling.

85. Which Indian state became the first state in the country to have industrial policy exclusively for women entrepreneurs — Maharashtra.

86. What is the name of the currency of Kuwait — Dinar.

87. According to the survey by Bank of Thailand which country has the highest unemployment in Asia — India.

88. Which bank has recently bagged Best nationalised Bank Award in FE Best Bank Awards 2015-16 — State Bank of India.

89. Which country depreciates its currency after talks with International Monetary Fund — Pak-e-stan.

90. Who was recently appointed as the Executive Director of Reserve Bank of India — Uma Shankar.

91. Which company is the India's most valued company with a market value of 5.8 trillion — Reliance Industries.

92. Which state has topped preliminary rankings of Ease of Doing Business for 2017 — Haryana.

General Knowledge

93. What is the name of the biggest border guarding force in the world — Border Security Force.

94. In which year the first World Computer Literacy Day was celebrated — 2001.

95. What is the theme of the World Soil Day celebrated in 2017 — 'Caring for the Planet starts from the Ground'.

96. Where is the Birla Industrial & Technological Museum located — Kolkata.

97. On which date Mahaparinirvan Day was observed in India — 6th December.

98. The Armed Forces Flag Day-2017 is celebrated on which date in India — 7th December.

99. Where is the headquarter of National Green tribunal is located — New Delhi.

100. On which date International Civil Aviation Day was observed — 7th Dcember.

Descriptive English

In the written part of CivilService Exam of West Bengal, Odisha, Bihar, Jharkhand & Tripura State; Main Part of Indian Administrative Service (IAS); Clerkship Main and Miscellaneous Services Main Examination conducted by PSC, descriptive english section is compulsory. To score good marks in that part everyone has to bank on answer's bank. Now **Nirmal Dey** shows you the steps to score maximum number in this section.

Write a comprehensive essay on "Invention is the mother of necessity"

"Invention is the mother of necessity"- - Thorstein Veblen

Since time immemorial, we are well acquainted with the proverb 'Necessity is the mother of inventions'. Indeed, most of the inventions and discoveries owe their successful operation to necessity. Unless there is want we cannot struggle to attain the goal. The history of human progress in all walks of life is the history of man's endeavour to reach new goals. The meaning of the proverb is self-evident. We invent what we need; unless we feel the pressure of needs, we are not likely to invent anything. As new needs arise, fresh methods are devised to meet them New plans are hatched to find solutions to different problems. Necessity makes us bold, zealous and eager enough to fulfill our needs. Necessity is a blessing in disguise.

But, the technology traits today converse the proverb in entirety. In today's digital age-- an age of science and sophisticated technologies, it's the invention of something that evolves its necessity. In our world these days, what we experience is exactly in reverse: "Invention is the mother of necessity". It has now become 'Invention is the mother of necessity'. Yes, in today's advance technological Universe, it is the invention of something that evolves its necessity. It might have been sensed something wrong as soon as one would have read the title of the essay but it is absolutely true, a hard reality.

Invention is the mother of necessity. It is the latest 'adage ' of the present society. For instance, before we had mobile phones we survived without being able to call from anywhere any time. Phone calls were only possible when we were at home, or in the office, or, in an emergency, from phone booths. Amazingly enough, we all survived smoothly and contentedly even then. But today, we can't live without cell phones possibly for a minute even! It obviously proves that it is the invention that creates necessity.

Technology always comes from humanity. In this modern world, we have been counting on technology. It deprives us of our time and energy, although we can no longer live without it. It has made a huge impact on our lives. Spiritualism is on the wane while materialism is on the increase. This excessive trend of materialism has made inventions as the mother of necessity. In the modern world

men and women do not only seek to satisfy their necessity but also their desire for beauty, sophisticated amenities, showing of, lust for power etc. The mere satisfaction of needs can never be the sole motive for exercising man's faculties for inventiveness. Modern men are not at all ready to be passive in the simple and common attitude to life or to follow the same old habits and ways to life. Everywhere there is a rat race of style and fashion. The world is changing every day and the modern men must adapt themselves to the changing needs and keep pace with those. The more we invent new machines and gadgets, the greater will be our incentive to expand our horizon on necessities.

Before we' had cell phones we survived without being able to call from anywhere to anywhere at any time. Phone calls happened only when we were at home, or in the office, or, in an emergency, from phone booths. And, amazingly enough, now, we can't live without cell phones. Can we? Of course not.it is clear enough here

that now inventions have become the mother of necessity. The same is true with email, SMS text messaging, the Web connection, Laptop, Electronic Tab, iPod, iPad, Smartphones and every modern electronic gadget. Facebook now has become an indispensable part of almost everybody's life. It was never a necessity, but its invention made it a necessity rather to say an addiction. Sometimes, we are attracted by a particular thing not for its necessity or utility, but just due to peer pressure. Many people use it involuntarily to show off their lofty stratum. Lucrative and attractive advertisements, various cunning marketing Strategies have cast such a robust spell on our mind that we think on it a part of our life. Though not impossible, it's difficult to get out of this conjure.

Modern men, indeed, are rushing madly towards modem and concurrent technologies which are increasing their need more and more and thus Invention has virtually become the radar of the ship of their necessity. Once a new product is made, the demand for it can always be created. People are always in hunt of new gadgets, not out of necessity but out of curiosity and voracity. People would always want to try something which they've never tried. Here, we need not be Marketing Experts or Trade

Analysts to understand this simple yet cunning gamble of Technology vendors for high profits.

In fine, modern sophisticated Invention changes the world particularly born in the 20th century and grown up in the 21st century. Needless to say, people around the world are getting immensely benefited by modern inventions, even absolutely unthinkable just before a decade. But everyone should at the same time be determined not to use them for the harm or destruction or disadvantage of others. Above all, we should neither fall an easy prey to the hoax of the speculative vendors or marketers nor under any peer pressure to tackle the greed for unwanted profiteering. But after all it is undeniable standing on the second half of the second decade of twenty first century that though inventiveness and ingenuity are stimulated by difficulty invention is often the mother of necessity, rather than vice versa.Above all we must remember --"**If necessity is the mother of Invention, the reverse would certainly be the father of re-Invention**" (755 WORDS)

3,162 Apprentice
From Page 1

eligible to apply. Age should be between 15 and 24 years as on 27.01.2018. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Physically challenged candidates will get exemption in age as per the Govt. Rules.

Mode of Selection : Selection will be made on the basis of marks obtained in the 10th standard examination & Trade Certificate Course. List of the shortlisted candidates will be displayed between 15th & 28th February, 2018. Shortlisted candidates will have to undergo training for a period of 1 or 2 year(s) and during this training period, candidates will get stipend as per the rules issued by the Railway Board.

How to Apply : Candidates will have to apply on-line through this website : www.rrcnr.org within 27.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. At first, candidates will have to visit the website & open the appropriate on-line application form. Thereafter, candidate will have to fill in all the required fields and upload his / her passport size recent coloured photograph & signature in specific digital format. After that, candidates will have to pay Rs.100/- as application fee by using on-line payment gateway through Credit / Debit Card / Net Banking Facility / E-Wallet. No application fee is required for Female / SC / ST / PWD candidates. After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking 'Submit' button. After that, candidates are required to obtain the print-out of the computerised system generated application form, which must be retained for future purpose. Last date for the submission of the on-line application is 27th January, 2018. The detailed recruitment news will be published in the 'Appointment & Career News' in due course.

Notice No. RRC/NR/03/2017/ApprenticeAct.

Source : Available on www.rrcnr.org

2,173 Doctor   From Page 1

Surgeon)' through Odisha Public Service Commission. Candidates, who have passed M.B.B.S. Course from any Medical College / Institute recognised by Medical Council of India are eligible for the post. In addition to this qualification, candidates should be registered under the Odisha Medical 'Registration Rules 1965'. Candidates should also have reading, writing & speaking proficiency in Odiya language & candidates should have passed an examination in Odiya language equivalent to that of Middle English School standard conducted by the Board of Secondary Education,

Odisha / School & Mass Education Department / Board of Odisha or any other Board / Council of Secondary Education approved by the Govt. of Odisha. Candidates should possess good mental condition, bodily health & free from any physical defect, which is likely to interfere the efficient performance of the duties. Age should be between 21 and 32 years as on 01.01.2017 that means candidates should be born between 02.01.1985 and 01.01.1996. Female / SEBC / SC / ST / Ex-Servicemen & Physically Challenged candidates will get relaxation in age by 5 years & 10 years respectively. Scale of Pay is Rs.15,600/- – 39,100/- with Grade Pay of Rs.5,400/-. Number of vacancy is 2,173 (UR : 743, UR-Woman : 319, SC : 312, SC-W : 133, ST : 466, ST-W : 200).

Mode of Selection : Selection will be made on the basis of Written Test & Career Assessment to be conducted by the Odisha Public Service Commission. The Written Test will be held at Cuttack. The Written Test of 3 hours duration will consist of multiple choice objective questions & it will carry 200 marks. There will be no negative marking in the Written Test. Candidates will have to secure at least 50% (40% for SC / ST & 45% for Physically challenged applicants) marks in aggregate of both tests. Candidates are required to download the Admit Card of the Written Test from the website as mentioned below.

How to Apply : Candidates will have to apply on-line through this website : http://opsconline.gov.in within 17.01.2018. Candidates should have a valid personal e-mail ID, which should be kept active during this recruitment process. Before applying on-line, candidates should go through the detailed recruitment notification, available on the website. After that, candidates will have to click on the 'Apply online' link to open the appropriate on-line application form. At the time of applying on-line, candidate will also have to upload his / her passport size recent photograph, signature & left thumb impression in specific digital format. After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking 'Submit' button. After that, candidates are required to obtain the print-out of the computerised system generated application form. Candidates will also have to download the 'Pay-In-Slip' from that website. Afterwards, candidates will have to visit any branch of State Bank of India to pay Rs.300/- as application fee through that 'Pay-in-Slip' within 20.01.2018. After that, candidates must collect the 'OPSC Copy' of that 'Pay-in-Slip' from the branch containing all particulars. No application fee is required for SC / ST / Physically challenged candidates.

The print-out of the on-line application form should be enclosed with the following documents : (1) 2 copies of unsigned unattested passport size recent photographs, (2) Attested photostat copies of all Certificates & Mark Sheets in support of Date of Birth, Educational Qualification, Caste (for SC / ST / SEBC of Odisha), Disability (for Physically Challenged applicants), Discharge (for Ex-Serviceman), (3) Counterpart of 'Pay-In-Slip'. Candidates are required to mention 'Submitted by Me' and put their full signature with date on each document & put their full signature with date on the same. The envelope containing the print-out of the on-line application form should be superscribed as 'APPLICATION FOR THE POST OF MEDICAL OFFICER (ASSISTANT SURGEON)'. The print-out of the on-line application form along with all requisite documents should be sent through Registered / Speed Post / Courier Service so as to reach within 29.01.2018 to the following address : The Special Secretary, Odisha Public Service Commission, 19 Dr. P.K. Parija Road, Buxi Bazar, Cuttack – 753 001.

Advertisement No. 12 of 2017-18.

Source : Available on http://opsc.gov.in

QUANTITATIVE PTITUDE
From Page 6

School A $\Rightarrow \dfrac{520}{13} \times 10 = 400$

School B $\Rightarrow \dfrac{450 \times 2}{3} = 300$

School C $\Rightarrow \dfrac{330}{3} \times 5 = 550$

School D $\Rightarrow \dfrac{420}{7} \times 6 = 360$

Difference between the number of students from schools A and C who appear in test = (520 + 400) − (330 + 550) = 920 − 880 = 40. Difference between the number of students from schools B and D who appear in test = (420 + 360) − (300 + 450) = 780 − 750 = 30. Hence, Required ratio = 40 : 30 = 4 : 3

12(E). School B

Males who appear in test = 300.

According to the question,

$\dfrac{300 - x}{450 - x} = \dfrac{5}{8}$

$\Rightarrow 2,400 - 8x = 2,250 - 5x$

$\Rightarrow 8x - 5x = 2,400 - 2,250 = 150$

$\Rightarrow 3x = 150$

$\Rightarrow x = \dfrac{150}{3} = 50$

13(B). Males from school E who appear in test =

$\dfrac{300}{4} \times 5 = 375$. Total number of students who

appear in test :

School D ⇒ 360 + 420 = 780

School E ⇒ 375 + 300 = 675

Required per cent = $\left(\dfrac{780 - 675}{675}\right) \times 100 =$

$\dfrac{10500}{675} = \dfrac{149}{9} = 15\dfrac{5}{9}$ %

14(B). Required average = $\dfrac{300 + 360 + 375}{3} =$

$\dfrac{1035}{3} = 345.$

15(B). Required difference = (400 + 550) − (520 + 330) = 950 − 850 = 100

16(A). $1,440 \div \sqrt{144} + 45 - ? = 22 \times 5$

$\Rightarrow 1,440 \div 12 + 45 - ? = 110$

$\Rightarrow 120 + 45 - ? = 110$

$\Rightarrow ? = 165 - 110 = 55$

17(C). $\dfrac{60}{100} \times ? \times 8 - \sqrt{4225} = 7$

$\Rightarrow \dfrac{24 \times ?}{5} - 65 = 7$

$\Rightarrow \dfrac{24 \times ?}{5} = 65 + 7 = 72$

$\Rightarrow ? = \dfrac{72 \times 5}{24} = 15$

18(C). $\dfrac{40 \times \sqrt{?}}{56} = 5^2 = 25$

$\Rightarrow 40 \times \sqrt{?} = 25 \times 56$

$\Rightarrow \sqrt{?} = \dfrac{25 \times 56}{40} = 35$

$\Rightarrow ? = 35 \times 35 = 1,225$

19(C). $3,090 - 930 - ? = 22 \times 50$

$\Rightarrow 2,160 - ? = 1,100$

$\Rightarrow ? = 2,160 - 1,100 = 1,060$

20(B). $?^2 = \dfrac{1564 + 1636}{8}$

$\Rightarrow ?^2 = \dfrac{3200}{8} = 400$

$\Rightarrow ? = \sqrt{400} = 20.$

21(E). I. $x^2 - 3x - 40 = 0$

$\Rightarrow x^2 - 8x + 5x - 40 = 0$

$\Rightarrow x(x-8) + 5(x-8) = 0$

$\Rightarrow (x-8)(x+5) = 0$

$\Rightarrow x = 8 \text{ or}, -5$

II. $y^2 - 15y + 54 = 0$

$\Rightarrow y^2 - 9y - 6y + 54 = 0$

$\Rightarrow y(y-9) - 6(y-9) = 0$

$\Rightarrow (y-9)(y-6) = 0$

$\Rightarrow y = 9 \text{ or}, 6$

22(C). I. $2x^2 + 7x + 5 = 0$

$\Rightarrow 2x^2 + 2x + 5x + 5 = 0$

$\Rightarrow 2x(x+1) + 5(x+1) = 0$

$\Rightarrow (x+1)(2x+5) = 0$

$\Rightarrow x = -1 \text{ or}, \dfrac{-5}{2}$

II. $5y^2 + 9y + 4 = 0$

$\Rightarrow 5y^2 + 5y + 4y + 4 = 0$

$\Rightarrow 5y(y+1) + 4(y+1) = 0$

$\Rightarrow (y+1)(5y+4) = 0$

$\Rightarrow y = -1 \text{ or}, \dfrac{-4}{5}$

Clearly, $x \leq y$

23(E). I. $x^2 - 21x + 38 = 0$

$\Rightarrow x^2 - 2x - 19x + 38 = 0$

$\Rightarrow x(x-2) - 19(x-2) = 0$

$\Rightarrow (x-2)(x-19) = 0$

$\Rightarrow x = 2 \text{ or}, 19$

II. $y^2 - 11y + 28 = 0$

$\Rightarrow y^2 - 4y - 7y + 28 = 0$

$\Rightarrow y(y-4) - 7(y-4) = 0$

$\Rightarrow (y-4)(y-7) = 0$

$\Rightarrow y = 4 \text{ or}, 7$

Clearly, $x < y$

24(A). I. $(x+13)^2 = 0$

$\Rightarrow x = -13, -13$

II. $y^2 + y - 56 = 0$

$\Rightarrow y^2 + 8y - 7y - 56 = 0$

$\Rightarrow y(y+8) - 7(y+8) = 0$

$\Rightarrow (y-7)(y+8) = 0$

$\Rightarrow y = 7 \text{ or}, -8$

Clearly, $x < y$

25(C). I. $9x^2 - 18x + 8 = 0$

$\Rightarrow 9x^2 - 6x - 12x + 8 = 0$

$\Rightarrow 3x(3x-2) - 4(3x-2) = 0$

$\Rightarrow (3x-2)(3x-4) = 0$

$\Rightarrow x = \dfrac{2}{3} \text{ or}, \dfrac{4}{3}$

II. $3y^2 - 10y + 8 = 0$

$\Rightarrow 3y^2 - 6y - 4y + 8 = 0$

$\Rightarrow 3y(y-2) - 4(y-2) = 0$

$\Rightarrow (y-2)(3y-4) = 0$

$\Rightarrow y = 2 \text{ or}, \dfrac{4}{3}$

Clearly, $x \leq y.$

26(C). Let the investment in scheme A be Rs. 100. Hence, Investment in scheme B = Rs. 75

According to the question,

$\dfrac{100 \times 10 \times 6}{100} = \dfrac{75 \times 5 \times R}{100}$

$\Rightarrow 75 \times 5 \times R = 1000 \times 6$

$\Rightarrow R = \dfrac{1000 \times 6}{75 \times 5} = 16\%$ per annum

27(E). Let A's present age be x years.

Hence, B's present age = $\left(\dfrac{x-6}{2} + 3\right)$ years

$= \left(\dfrac{x-6+6}{2}\right)$ years $= \dfrac{x}{2}$ years

According to the question,

$\dfrac{x-2}{\frac{x}{2} - 6} = \dfrac{9}{4}$

$\Rightarrow \dfrac{x-2}{x-12} = \dfrac{9}{8}$

$\Rightarrow 9x - 108 = 8x - 72$

$\Rightarrow 9x - 8x = 108 - 72 \Rightarrow x = 36$

B's present age = $\dfrac{36}{2} = 18$ years

Reasoning Ability
From Page 7

• The number of persons between D and who is specialised in Electrical Engineering is same as the number of persons between D and I. This statement also confirms that I lives on floor number two.

• K lives on an even numbered floor and he is specialised in Automobile Engineering. The Vacant even number floor is six.

• Now, only jjne specialisation, i.e., Software Engineering remains unspecified. Therefore, I has specialisation in Software Engineering.

Now, we have information to construct the complete table as follows :

Floor Number	Person	Specialisation
8	J	Electrical Engineering
7	E	Aeronautical Engineering
6	K	Automobile Engineering
5	D	Civil Engineering
4	H	Mechanical Engineering
3	F	Chemical Engineering
2	I	Software Engineering
1	G	Instrumentation Engineering

1(C). F is specialised in Chemical Engineering and he lives on Floor Number three. J is specialised in Electrical Engineering and he lives on the topmost floor, i.e., floor number eight. Four persons – E, K, D and H – live between the floors of J and F.

2(B). J is specialised in Electrical Engineering.

3(A). Except G, all others live on even numbered floors.

4(D). D lives on floor number five.

5(E). The number of floors between G and the one who is specialised in Mechanical Engineering is two. The number of floors between F and the one who is specialised in Automobile Engineering is two. In both the cases the second person lives aboves the first person. Therefore, H is related to Aeronautical Engineering.

6(D). R sits second to the right of D.

7(A). B's age is 31 years. Four persons – P, D, C and R – sit between B and S.

8(C). C is 26 years old.

9(B). P is third to the left of the person whose age is 16 years. B is third to the left of the per-on whose age is 26 years. R is third to the left of the person whose age is 17 years.

10(D). Immediate neighbours of A are S and Q.

The age of S is 23 years. The age of Q is 17 years.

Required Difference = (23 − 17) years = 6 years

(11-15) :

Year	Person	Age in years
1946	T	71
1967	P	50
1972	Q	45
1982	R	35
1984	S	33
1989	V	28
1992	U	25

Square root of 25 = 5

Therefore, Q − R = 5 × 2 = 10.

Q was born in 1972 and R was born in 1982. (Remember R is not the youngest) 50 is the highest multiple of 5. Therefore, P was born in 1967. The age of S may be 71, 33, or 28 years and the difference between the ages of R and S would be 36, 2 or 7 years. If we divide 28 by 14 we get 2. Therefore, S is 33 years old.

11(D). T is the oldest.

12(B). The age of R is 35 years.

13(E). U is the youngest.

14(C). The age of S is 33 years.

15(A). V was born in 1989.

(16-17) : □ > A > □ □ □ □

A > E > B, D

□ > A > E > B > D > □

C > A > E > B > D > F

↓ ↓

40 year   25 year

16(A). Clearly, C is the oldest in the family.

17(E). The age of B is more than 25 years but less than 40 years.

18(C). Option (A) B ≤ C = A ≥ K = R

A ≥ R : True

B < C : Not True

Option (B) C = K > B < R ≥ A

A ≥ R : Not True

B < C : True

Option (C) C > B > A ≥ K = R

A ≥ R : True

B < C : True

Option (D) B=K<C<R=A

A ≥ R : Not True

B < C : True

(19-23) :

Month	Date	Person
March	10th	M
	27th	X
June	10th	W
	27th	N
October	10th	Z
	27th	O
November	10th	V
	27th	Y

19(D). M attends his seminar on 10th March.

20(B). X attends his seminar on 27th March.

21(A). Five persons – N, Z, O, V and Y attend seminar after W.

22(C). Z attends his seminar on 10th October.

23(E). Only Y attends seminar after V.

24(E). M > U > L ≤ N

L ≥ Y > A

Y ≤ L ≤ N

Conclusions : I. Y < N : Not True

II. Y = N : Not True

Y is either smaller than or equal to N. Therefore, either Conclusion I or Conclusion II is true.

25(D). J ≥ A > D = E

L < A < M

J ≥ A < M

J ≥ A > L

Conclusions : I. M < J : Not True

II. J > L : True

26(A). M ≤ K > L = Y

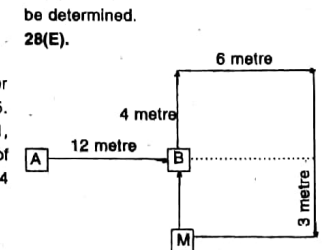P ≤ T > M

P ≤ T > M ≤ K > L = Y

T > M ≤ K > L

Conclusions : I. P > Y : Not True

II. T < L : Not True

27(E). The positions of L and Q cannot be determined.

28(E).

BM = 3 metres

North

NW   NE

West   East

SW   SE

South
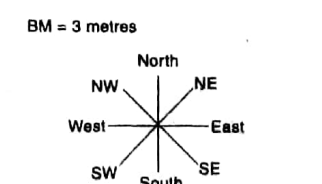
Probable Question-Answer Set of SSC-CHSL Exam 2017

Various Departments of Central Govt. are going to recruit 3,259 persons for various posts through Combined Higher Secondary Level (10+2) examination conducted by Staff Selection Commission. The Computer Based Tier-I examination of 60 minutes duration will consist of 100 MCQs based on the following 4 subjects : (i) General Intelligence, (ii) English Language, (iii) Quantitative Aptitude & (iv) General Awarness. Each subject will carry 25 questions, each question having 2 marks. There will be negative marking of 0.50 marks for each wrong answer. The probable question-answer set of the Preliminary Exam is discussed by the Competitive Exam Specialist **Prama Das.**

GENERAL INTELLIGENCE

1. Select the related word from the given alternatives :
Goal : Football : : Basket : ?
(A) Polo (B) Cricket
(C) Volleyball (D) Basketball

2. Select the related letters from the given alternatives:
OFFICIAL : QHHKEKCN : : LANGUAGE : ?
(A) NCPWICIG (B) NCPIWCIG
(C) NCPIWICG(D) NCPIWCGI

3. Select the related letters from the given alternatives: SPINSTER : ROHMRSDQ : SEMESTER : ?
(A) RDDLRSDQ (B) RDLDSRDQ
(C) RDLDRSDQ (D) RDLDRDSQ

4. Select the related number from the given alternatives:
12 : 72 : : 13 : ?
(A) 31 (B) 84 (C) 100 (D)78

5. Find out the odd word from the given alternatives :
(A) Washington (B) New York
(C) Las Vegas (D) Sydney

6. Find out the odd letters from the given alternatives :
(A) WZ (B) FG (C) UX (D) OR

7. Find out the odd number from the given alternatives:
(A) 2,378 (B) 9,122 (C)1,517 (D) 2,346

8. Find out the odd number from the given alternatives:
(A) 56 (B) 72 (C) 90 (D) 64

9. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
?, Hexane, Heptane, Octane
(A) Pentane (B) Benzene
(C) Nonane (D) Methane

10. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
EFGHI, LMNO, RST, WX, ?
(A) A (B) D (C) B (D) E

11. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
TU, DE, NO, ?
(A) PQ (B) FG (C) XY (D) VW

12. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
? , 9, 19, 39, 79
(A) 4 (B) 9 (C) 7 (D) 6

13. In the following question, two statements are given followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statements :
(I) No women can vote.
(II) Some women are politicians.
Conclusions:
(I) Male politicians can vote.
(II) Some politicians can vote.
(A) Conclusion I follows
(B) Conclusion II follows
(C) Neither I nor II follows
(D) Both I and II follow

14. There are five friends I, J, K, L and M. K's income is more than L's income but lesser than M's income. J's income is the least. I's income is lesser than K's income. Whose income is the maximum?
(A) L (B) I (C) K (D) M

15. Arrange the given words in the sequence In which they occur in the dictionary :
i. Examination ii. Explicit iii. Expenditure iv. Experience
(A) i, iv, iii, ii (B) i, ii, iii, iv
(C) i, iv, ii, iii (D) i, iii, iv, ii

16. In a certain code language, 'NUMBER' is written as '156897' arid 'BARREN' is written as '847791'. How is 'RUBBER' written in that code language?
(A) 759597 (B) 758897
(C) 795957 (D) 795579

17. In the following question, select the missing number from the given alternatives.

6	8	12
7	9	14
85	145	?

(A) 175 (B) 450 (C) 340 (D) 740

18. If 'K' means 'subtracted from', 'L' means 'divided by', 'M' means 'added to' and 'D' means 'multiplied by', then 96 L 4 K 6 M 12 D 9 = ?
(A) 117 (B) 125 (C) 120 (D) 145

19. Which set of letters when sequentially placed at the gaps in the given letter series shall complete it?
CD_E_DD_CD_E
(A) CDCD (B) DCCC (C) DCED (D) DDDC

20. Gurpreet is facing towards south. She turns right and walks 35m, then turns right again and walks 40m more. Finally, she turns left and walks 30m. Which direction is she facing now?
(A) South (B) North (C) West (D) East

21. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabet as shown in the given two matrices. The columns and rows of Matrix-1 are numbered from 0 to 4 and that of Matix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example, 'D' can be represented by 68, 10 etc. and 'R can be represented by 34, 22 etc. Similarly, you have to identify the set for the word 'PRIME'.

Matrix-I

	0	1	2	3	4
0	I	P	I	M	R
1	D	I	W	R	W
2	S	H	R	B	E
3	P	R	E	P	R
4	R	E	P	C	F

Matrix-II

	5	6	7	8	9
5	A	E	Z	A	Z
6	M	G	A	D	Y
7	K	A	X	G	M
8	A	B	C	A	W
9	P	V	M	H	N

(A) 42,31,20,79,57 (B) 33,34,11,97,56
(C) 95, 13, 02, 14, 23 (D) 30, 22, 00, 65, 99

22. Sandeep has a brother named Ankur. Sandeep is the son of Kishan. Baljor is Kishan's father. How is Ankur related to Baljor ?
(A) Grandson (B) Brother (C) Son (D) Grandfather

23. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?
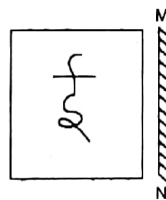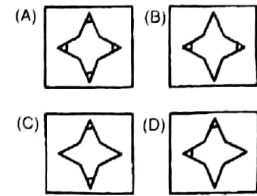

24. Identify the diagram that best represents the relationship among the given classes :
Graduates, Doctors, Professors
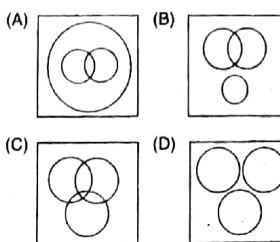
25. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

GENERAL AWARENESS

26. The Ghuguwa Fossil park is located in which of the following states ?
(A) Madhya Pradesh (B) Uttarakhand
(C) Himachal Pradesh (D) Assam

27. Where is the Central Fuel Research Institute situated?
(A) Asanssol (B) Bokaro (C) Raurkella (D) Dhanbad

28. The disease Beri Beri is caused due to the deficiency of which of the following?
(A) Vitamin B2 (B) Vitamin B1
(C) Vitamin B12 (D) Vitamin E

29. Who first isolated and named the Chlorophyll?
(A) Joseph Bienaimé Caventou (B) Pierre-Joseph Pelletier
(C) Casimir Funk (D) Caventou and Pelletier

30. Which of the following organisms does not fit into the Cell Theory?
(A) Bacteria (B) Virus (C) Fungi (D) Plants

31. Which among the following is not a characteristic of transition metals?
(A) Tendency to gain electrons (B) Low electronegativity
(C) Low ionization energy (D) Malleability

32. Ethylene is a_____molecule.
(A) polar (B) ionic (C) covalent (D) nonpolar

33. Which one of the following built the 'Gateway of India'?
(A) Frank Lloyd Wright (B) George Wittet
(C) Frank Gehry (D) Zaha Hadid

34. Where was Pablo Picasso from?
(A) Spain (B) Italy (C) France (D) Great Briton

35. The first census in India was held during the viceroyalty of which governor General?
(A) Lord Minto (B) Lord Ripon
(C) Lord Hastings (D) Lord Cornwallis

36. What is the name of the capital city of Colombia?
(A) Bogota (B) Managua (C) Miami (D) Havana

37. On which date World Diabetes Day is observed ?
(A) 12th November (B) 14th November
(C) 16th November (D) 18th November

38. Nagarhole National Park is part of the_____ Biosphere Reserve.
(A) Aravalli (B) Vindhya (C) Satpura (D) Nilgiri

39. Where is the Film and Television Institute of India located?
(A) Ahmedabad (B) Mysore (C) Mumbai (D) Pune

40. Who has won the IBSF World Billiards Championship -2017?
(A) Pankaj Advani (B) Geet Sethi
(C) Anuja Thakur (D) Sourav Kothari

41. Raipur is the capital of which Indian State?
(A) Jharkhand (B) Goa
(C) Himachal Pradesh (D) Chhattisgarh

42. Who is the author of the book 'Tewnty thousand Leagues Under the Sea' ?
(A) Agatha Christie (B) Jules Gabriel Verne
(C) Arthur Conan Doyle (D) None of these

43. Bahadur Shah-I was born in the year____.
(A)1543 (B)1643 (C) 1743 (D) 1843

44. Who was the first American to win Nobel Peace prize?
(A) Abraham Lincoln (B) George Bush Sr.
(C) Theodore Roosevelt (D) Franklin Roosevelt

45. Acceleration is
(A) Inversely proportional to force
(B) Inversely proportional to mass
(C) Directly proportional to mass
(D) Directly proportional to force

46. If ice floating on water in a vessel melts, the water level in the vessel_____.
(A) increases (B) does not change (C) first increases before decreasing (D) decreases **Contd. on Page 12**

SSC-CHSL Exam
From Page 11

47. The Constitution of India was framed by:
(A) Planning Commission (B) Constituent Assembly
(C) President (D) Working Committee

48. What is the minimum age to qualify for Lok Sabha Elections?
(A) 25 years (B) 30 years (C) 21 years (D) 18 years

49. Who is the first Indian Cricketer to score a triple century in Test Cricket?
(A) Sachin Tendulkar (B) Virendra Sehwag
(C) Sourav Ganguly (D) M.S. Dhoni

50. Who is the author of 'Interpreter of Maladies'?
(A) Jhumpa Lahiri (B) Amish Tripathi
(C) Ravinder Singh (D) Salman Rushdie

QUANTITATIVE APTITUDE

51. A thief is stopped by a policeman from a distance of 400 metres. When the policeman starts the chase, the thief also starts running. Assuming the speed of the thief as 5 km/hr and that of policeman as 9 km/hr, how far the thief would have run, before he is over taken by the policeman ?
(A) 400 metre (B) 600 metre
(C) 500 metre (D) 300 metre

52. If $2x - 3(4 - 2x) < 4x - 5 < 4x + \frac{2x}{3}$ then x can take which of the following values ?
(A) 2 (B) 8 (C) 0 (D) -8

53. If $\frac{1}{(\tan A + \cot A)} = x$, then the value of x is
(A) cosAsinA (B) cos^{2}Asin^{2}A
(C) cosecAsecA (D) cosec^{2}Asec^{2}A

54. At least two pairs of consecutive angles are congruent in a
(A) Parallelogram (B) Isosceles trapezium
(C) Rhombus (D) Kite

55. An engineering student has to secure 25% marks to pass. He gets 47 and fails by 43 marks. What are the maximum marks of the examination ?
(A) 385 marks (B) 410 marks
(C) 360 marks (D) 435 marks

56. P (4, 2) and R (-2, 0) are vertices of a rhombus PQRS. What is the equation of diagonal QS ?
(A) x - 3y = -2 (B) 3x+y= 4
(C) 3x+ y= -4 (D) x-3y= 2

57. If a-b= 11 and ab = 24, then the value of (a^2 + b^2) is
(A) 169 (B) 37 (C) 73 (D) 48

58. There is 40% increase in an amount in 8 years at simple interest. What will be the compound interest (in rupees) of Rs 30,000 after 2 years at the same rate ?
(A) 6,150 (B) 7,687.5 (C) 4,612.5 (D) 3,075

59. What is the measure of central angle of the arc whose length is 11 cm and radius of the circle is 14 cm ?
(A) 45° (B) 60° (C) 75° (D) 90°

60. If the shopkeeper sells an item at Rs. 960 which is marked as Rs. 1,200, then what is the discount he is offering?
(A) 25% (B) 12% (C) 20% (D) 28%

61. The simplified form of (x + 3)^2 + (x - 1)^2 is
(A) (x^2+2x+5) (B) 2(x^2+2x+5)
(C) (x^2-2x+5) (D) 2(x^2-2x+5)

62. The sum of all prime numbers between 58 and 68 is
(A) 179 (B) 178 (C) 187 (D) 183

63. A cylindrical vessel of height 5 cm and radius 4 cm is completely filled with sand. When this sand is poured out it forms a right circular cone of radius 6 cm. What will be the height of this cone? (Take ? = $\frac{22}{7}$)
(A) 6.67 cm (B) 2.22 cm (C) 3.33 cm (D) 1.67 cm

64. When a discount of 20% is given on a sweater, the profit is 28%. If the discount is 14%, then the profit is
(A) 42% (B) 48.4% (C) 33.2% (D) 37.6%

65. Point P is the midpoint of segment AB. Co-ordinates of point P are (2,1) and that of point A are (11,5). The co-ordinates of point B are
(A) (-7,-3) (B) (6,5,3) (C) (7,3) (D) (-6.5,-3)

66. In an army selection process, the ratio of selected to unselected candidates was 4:1. If 90 less had applied and 20 less were selected, the ratio of selected to unselected candidates would have been 5:1. How many candidates had applied for the process ?
(A) 1,650 (B) 3,300 (C) 825 (D) 4,950

67. The average of 25 consecutive odd integers is 55. The highest of these integers is
(A) 79 (B) 105 (C) 155 (D) 109

68. The product of digits of a 2-digit number is 24. If we add 45 to the number, the new number obtained is the number formed by interchanging the digits. What is the original number?
(A) 54 (B) 83 (C) 38 (D) 45

69. What is the value of $\sin\left(\frac{11\pi}{6}\right)$?
(A) $\frac{2}{\sqrt{3}}$ (B) $\frac{-2}{\sqrt{3}}$ (C) $\frac{1}{2}$ (D) $\frac{-1}{2}$

70. Sister can bake 50 cakes in 25 hours, Sister and Mummy together can bake 75 cakes in 15 hours. How many cakes Mummy can bake in 15 hours ?
(A) 25 (B) 45 (C) 20 (D) 10

71. If sinC - sinD = x, then the value of x is —
(A) $2\sin\left[\frac{(C+D)}{2}\right]\cos\left[\frac{(C-D)}{2}\right]$
(B) $2\cos\left[\frac{(C+D)}{2}\right]\cos\left[\frac{(C-D)}{2}\right]$
(C) $2\cos\left[\frac{(C+D)}{2}\right]\sin\left[\frac{(C-D)}{2}\right]$
(D) $2\sin\left[\frac{(C+D)}{2}\right]\sin\left[\frac{(C-D)}{2}\right]$

72. Refer the following data table and answer the following Question.

	Boys	Girls
Medical	35	60
Engineering	40	40

What per cent of students who chose Engineering are girls?
(A) 40 (B) 22.86 (C) 50 (D) 100

73. Refer the below data table and answer the following Question.

	Cumulative production
January	480
February	1,050
March	1,630
April	1,970
May	2,670
June	3,330

The polygon shows cumulate production of cars manufactured in the month starting from January. How many cars were manufactured in the months of April and May?
(A) 1,040 (B) 1,360 (C) 920 (D) 4,640

74. Refer the below data table and answer the following Question.

Day of the week	Distance jogged (in kms)
Monday	2.5
Tuesday	4
Wednesday	2.5
Thursday	3.5
Friday	0.5
Saturday	2.5
Sunday	1.5

If 400 calories are burnt by jogging 5km, how many calories were burnt in the given week?
(A) 1,410 calories (B) 1,360 calories
(C) 1,310 calories (D) 1,260 calories

75. Refer the below data table and answer the following Question.

Items	Yearly Expense in Rs. lakhs
Raw Materials	12
Labour	6
Rent	3
Interest	4
Taxes	3

Raw Materials and Interest are what per cent of total expenses?
(A) 49.89% (B) 42.84% (C) 64.39% (D) 57.14%

ENGLISH LANGUAGE

76. In the following question, the sentence is given with blank to be filled in with an appropriate word. Select the correct alternative out of the four.
I ____ to return by the 3rd of the month.
(A) strategize (B) program
(C) plan (D) project

77. Improve the bracketed part of the sentence. Einstein was one (of the wisest men) that ever lived.
(A) of the wisest man (B) Wiseman
(C) wisest man (D) No improvement

78. Select the word with the correct spelling.
(A) Oxidieser (B) Thespian
(C) Aproval (D) Secreetes

79. In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. To sweep over something so as to surround it completely.
(A) engulf (B) imbibe
(C) drown (D) plunge

80. Improve the bracketed part of the sentence. Venezuelans (were being) deprived of food and medicines for the past year.
(A) were (B) are (C) have been
(D) No improvement

81. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. Turn a blind eye
(A) Not able to see the obvious truth
(B) Hide the ugly truth from someone
(C) Pretend not to notice
(D) Stay away from bad habits

82. In the following question, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one, which best expresses the same sentence in Indirect/Direct speech. The girl in the red dress said to me, 'Where is the film studio?'
(A) The girl in the red dress inquired me, where the film studio is. (B) The girl in the red dress asked me, where is the film studio. (C) The girl in the red dress asked me where the film studio is.(D) The girl in the red dress asked me where the film studio was.

83. Select the synonym of sheath.
(A) weapon (B) hide
(C) encourage (D) coat

84. Select the antonym of primed.
(A) fit (B) able (C) unready (D) prepped

85. Rearrange the parts of the sentence in correct order Aggregate levels of under nutrition in India
P – remain shockingly high, despite the impressive
Q – stunting in the last decade
R – reduction in
(A) PRQ (B) QPR (C) RPQ (D) QRP

86. In the following question, a sentence has been given in Active/Passive voice. Out of four alternatives suggested, select the one which best expresses the same sentence in Passive /Active voice. I had to stop all my work to complete this project.
(A) All other work had to be stopped to complete this project by me. (B) For completing this project all other work must be stopped. (C) For completing this project I had to stop all my work. (D) To complete this project all other work had

been stopped by me.

87. Select the antonym of pilferer
(A) sniper (B) punk (C) lifter (D) police

88. In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. To take someone somewhere suddenly and quickly
(A) rush (B) whisk (C) fly (D) flit

89. Rearrange the parts of the sentence in correct order Imagine the government
P – were an investor,
Q – trying to maximize India's long-run
R – economic growth
(A) PRQ (B) PQR (C) QRP (D) RPQ

90. Select the synonym of genre.
(A) celebrity (B) common man
(C) category (D) pleasant

91. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
Up a blind alley
(A) hiding something intentionally from another person (B) not warning a person who is in danger (C) one can enjoy thrills only if one takes risk (D) following a course of action that is certain to lead to an undesirable outcome

92. Select the word with the correct spelling.
(A) tapestry (B) emannates
(C) insissted (D) coalese

93. In the following question, the sentence is given with blank to be filled in with an appropriate word. Select the correct alternative out of the four.
His success is worthy of ___.
(A) copying (B) aping
(C) simulation (D) emulation

Direction (Qs. 94-95) : In the following questions, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

94. My younger sister (A)/is much smarter (B)/then me. (C)/No error (D)

95. Those sort of people (A)/are always nice (B)/to you on your face. (C)/No error (D)

Direction (Qs. 96-100) : In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given numbered blank out of the four alternatives.

(96) so long ago, virtually everyone seemed (97) that a sizeable majority of British voters (98) reaffirm their faith and confidence in a united Europe. Unfortunately, what was considered to be a remote possibility has actually become a very (99) reality. A small majority of voters (100) to take Britain out of the European Union (EU) in the referendum held on June 23.

96. (A) Not (B) Far (C) So (D) Nor

97. (A) satisfied (B) positive (C) presumptuous (D) confident

98. (A) would (B) will (C) should (D) surely

99. (A) ominous (B) grim (C) dire (D) haunting

100.(A) had opted (B) will opt (C) have opted (D) has opted

ANSWERS WITH EXPLANATORY NOTES

GENERAL INTELLIGENCE

1(D). In the game of football scoring is done by kickin, goal. Similarly, in the game c basketball, scoring is done through throwing ball into the basket.

Post Graduate Degree in Business Administration

Staff Reporter, Kolkata : Indian Institute of Social Welfare and Business Management under Calcutta University is going to admit students to 2-years' full time Courses of Master of Business Administration (MBA) & Master of Human Resource Management (MHRM). These courses will commence form July, 2018. Honours Graduates of any recognised University / Institute with at least 50% (45% for SC/ST/OBC/PWD) marks or its equivalent grade in aggregate are eligible for admission to these courses. Graduates in professional stream such as Engineering / Law of any recognised University / Institute may also apply. Final year students may apply provisionally for the course.

Mode of Selection : Selection will be made on the basis of CAT Score. Shortlisted candidates will be called for GD / PI to be held at Kolkata, Bhubaneswar, Guwahati, Ranchi & New Delhi.

How to Apply : Candidates will have to collect the Application Form along with Admission Brochure from the reception counter of IISWBM on cash payment of Rs.1,500/-. Candidates may also download the application form from the website : www.iiswbm.edu In that case candidates will have to pay the application fee of Rs.1,500/- through on-line payment gateway by using Debit / Credit Card. Candidates may also pay the application fee of Rs.1,500/- through State Bank of India Power Jyoti A/c No.32495656710, IISWBM. The duly filled in application form along with requisite documents should be submitted within 29.12.2017 to the following address : Indian Institute of Social Welfare and Business Management, Management House, College Square (West), Kolkata – 700 073..

Source : Available on www.iiswbm.edu

Junior Engineer From Page 1

(Nepali language for applicants belonging to three hill sub divisions of Darjeeling Sadar, Kalimpong & Kurseong). Candidates should possess sound health & good character. Age should be within 36 years as on 01.01.2017 that means candidates should be born on or after 02.01.1981. OBC-A / OBC-B & SC / ST candidates of West Bengal will get relaxation in age by 3 years & 5 years respectively. Physically challenged candidates of any state will get exemption in age as per the Govt. Rules. Scale of Pay is Rs.9,000/- – 40,500/- with Grade Pay of Rs.4,400/-. SC / ST / OBC candidates outside West Bengal should apply against *'General Category'*.

Mode of Selection : Selection will be made on the basis of Written Exam & Personality Test to be conducted by the Public Service Commission, West Bengal. The Multiple choice Objective type Written Exam will be held tentatively on 18th February, 2018 in Kolkata North (Code No. 01) and Kolkata South (Code No. 02). Shortlisted candidates will be called for Personality Test. The detailed syllabus of the Written Test is available on the website as mentioned below in due course.

How to Apply : Candidates will have to apply on-line through this website : www.pscwbonline.gov.in within 03.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. Before applying on-line, candidate will have to register his / her name by providing basic details. Afterwards, candidates will receive a unique password & log-in ID through their registered e-mail ID & mobile numbers. Thereafter, candidate will have to open the appropriate on-line application form by entering that password & log-in ID. Afterwards, candidate will have to fill in all the required fields and upload his / her passport size recent coloured photograph & signature in specific digital format. After that, candidate should verify the data, what he / she put in the on-line application form. After verification, application should be submitted by clicking *'Submit'* button. Afterwards, candidates will be redirected automatically to the *'Government Receipt Portal System (GRIPS)'* of Govt. of West Bengal. Thereafter, candidates will have to choose the mode of payment either through on-line or through off-line.

In case of **on-line payment mode,** candidates will have to pay Rs.160/- as application fee by using on-line payment gateway through Debit / Credit Card / Net Banking Facility within 03.01.2018. In case of **off-line payment mode,** candidates will have to take a print-out of the *'Fee Payment Challan'* from that *'Government Receipt Portal System (GRIPS)'* of Govt. of West Bengal within 03.01.2018. Thereafter, candidates will have to submit that *'Fee Payment Challan'* along with Rs.180/- in any branch of United Bank of India within 04.01.2018. No application fee is required for SC /ST candidates of West Bengal & Physically Challenged applicants of any state. After the payment of the application fee, candidates will have to re-visit the website & check the payment status. Afterwards, candidates are required to obtain the print-out of the computerised system generated application form, which must be retained for future purpose. Last date for submission of the on-line application is 3rd January, 2018. Advertisement No. 25/2018.

Source : Available on www.pscwb.org.in

Rabindra Open School
From Page 1

Bengali (Subject Code : 001), English (002), Mathematics (010), Physical Science (011), Life Science (012), History (020), Geography (021) and the additional subjects are Political Science (023) / Economics (022) / Home Science (030) /Commerce (040). Students will have to take 8 compulsory subjects & 1 additional subject among these above mentioned subjects.

Pattern of Exam : Each subject expect *'Bengali'* will carry 100 marks. Bengali subject will comprise 2 papers carrying 200 marks. Students will have to secure at least 34% marks in aggregate to qualify. Books will be provided at the time of taking admission. Classes will be conducted generally on weekends or at evening on week days.

How to Apply : Students will have to collect the application form alongwith prospectus in person against cash payment of Rs.25/- from respective study centre (as available on the website : www.twbcros.org) within 07.02.2018. The duly filled in application should be enclosed with the following documents : (1) 2 copies of 2.5×3.5 cms self-attested passport size recent black & white photographs (1 copy to be pasted on the specific space of the application form & other copy to be enclosed), (2) Self-attested photostat copy of Calss-VIII passed Certificate & Marks Sheet **OR** 10th standard failed Mark Sheet, (3) Attested photostat copy of Certificate in support of Date of Birth, (4) Attested photostat copy of Caste (for SC / ST), Disability (for Physically challenged applicants) Certificate. The duly filled in application alongwith all requisite documents should reach within 07.02.2018 to the respective study centre, from which student will collect the application form. For further details, students may visit on this website : www.twbcros.org **OR** may contact this address : West Bengal Council of Rabindra Open Schooling, Bikash Bhavan, 3rd Floor, Purbapar, Bidhan Nagar, Kolkata – 700 091, Phone No. 033 2321 3261.

14 Paramedics From Page 1

'Laboratory Assistant Gr.-II' on contractual basis.

Post : Staff Nurse.

Candidates, who have passed 3-years' General Nursing & Midwifery (GNM) Course from any School / Institute recognised by Indian Nursing Council are eligible for the post. Graduates (B.Sc.) in Nursing of any recognised University / Institute may also apply. In addition to this qualification, candidates should be registered as Nurse & Midwife. Age should be between 20 and 38 years as on 08.12.2017. Gross Salary will be Rs.21,190/- p.m. Number of vacancy is 12 (UR : 09, SC : 03).

Post : Laboratory Assistant (Grade-II).

Candidates, who have passed Diploma Course (DMLT) / 1 year's Certificate Course in Medical Lab Technology from any recognised Institute after passing 12th standard examination in Science stream from any recognised Board / Council are eligible for the post. Age should be between 18 and 31 years as on 08.12.2017. Gross Salary will be Rs.10,970/- p.m. Number of vacancy is 02 (SC).

For both posts : SC candidates will get relaxation in age by 5 years.

Mode of Selection : Selection will be made through Walk-in-Interview to be held on 4th January, 2018 at 10 a.m. at Kasturba Gandhi Hospital, Chittaranjan Locomotive Works. Candidates must arrive at 9 a.m. for Registration.

How to Appear : At the time of appearing for the Interview, candidates will have to bring the following documents : (1) 2 copies of passport size colour photographs, (2) Original & attested or self-attested photostat copies of all Certificates & Mark Sheets in support of Date of Birth, Educational Qualification, Caste (for SC / ST / OBC), Discharge (for EX-Serviceman), Experience (if any). Employment Notice No. GMA/Med/Contract/Pt.VI dated : 08.12.2017.

Source : Available on www.clw.indianrailways.gov.in

Objective Q & A
From Page 5

17. Which of the following is/are the argument(s) in favour of investing in agriculture abroad?
(I) It is a means to boost food security in countries which invest (II) Agriculture at home is too costly in terms of scarce natural resources (III) It will help countries which do so to address discontent at home.
(A) Only (I) (B) Only (II) (C) All (I), (II) and (III) (D) Only (II) and (III) (E) Only (I) and (III)

18. Which of the following is the OPPOSITE of the word POTENTIAL as used in the passage?
(A) inept (B) unthinkable (C) impending (D) incapable (E) None of the given options

19. Which of the following is not true in the context of the passage?
(A) Gulf countries are rich on account of vast soil reserves and food needs are easily met through imports (B) China, India have made strides in addressing food security (C) Dripfeed irrigation is an efficient means of irrigation (D) The population is growing in gulf countries (E) All the given options are true in the context of the passage

20. Which of the following is the SAME in meaning as the word TRACKS as used in the passage?
(A) paths (B) monitors (C) prints (D) captures (E) None of the given options

Direction (Qs. 21-30) : *Which of the phrases (A), (B), (C) and (D) given below each sentence should replace the phrase printed in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark (E) as the answer.*

21. In the modern day, it is common to say you are bored to death if someone or something is incredibly uninteresting.
(A) bored of death (B) bored from death (C) bored till death (D) bored until death (E) No correction required

22. We advised them to going to a hill station during the summer vacation.
(A) for going to (B) that they go to (C) go to (D) that they should have to go to (E) No correction required

23. They failed in their attempt to repair the demolished portion of the building.
(A) for their attempt (B) in their attempting (C) with their attempt (D) on their attempt (E) No correction required

24. In Indian democracy. It is necessary for the citizens to beware of all the political facts about every political parry.
(A) be aware of (B) be aware for (C) beware for (D) be aware to (E) No correction required

25. We're going to have to put down our summer vacation until July because of the bad weather conditions.
(A) put off (B) put across (C) put out (D) put back (E) No correction required

26. We called on but we weren't able to find the car part we needed to fix the gear system.
(A) called off (B) called back (C) called around (D) called up (E) No correction required

27. If everyone chips in they can get the whole kitchen painted by today afternoon.
(A) chips on (B) chips up (C) chips off (D) chips towards (E) No correction required

28. Hang up there. I'm sure you'll find a better job very soon because you are very sincere.
(A) hang on (B) hang back (C) hang out (D) hang in (E) No correction required

29. When I think of on my youth, I wish I had studied harder and had secured good grades.
(A) think over (B) think about (C) think out (D) think back (E) No correction required

30. A stranger cut through with unsolicited advice on how we could fix our relationship.
(A) cut out (B) cut about (C) cut back (D) cut in (E) No correction required

ANSWERS WITH EXPLANATORY NOTES

1(E). The wings were heavy. **2(D). 3(B).** Back up = to provide support, Protest = to disagree; to disapprove. **4(E). 5(E). 6(B).** Crest (noun) = the top part of a hill or wave ; peak. Bottom (noun) = lowest part. **7(D). 8(D). 9(B). 10(C).** Wear (verb) = tire; Wear out = to make yourself /somebody feel very tired. **11(B).12(C).** Flat (Adjective) = complete or certain, and not likely to change; unvarying. **13(E). 14(B).** Drop (Verb) = to stop doing or discussing something; to not continue with something doing or discussing something; to not continue with something. Sustain (Verb) = to make something continue for sometime.**15(E). 16(E). 17(C). 18(E).** Potential (Noun/ Adjective) = someone's or something's ability to develop, achieve or succeed. **19(A). 20(B).** Track (Verb) = to record the progress; monitor. **21(E).** Bored to death = completely bored. **22(C).** Here, Infinitive i.e., to go to......should be used. Infinitive = to + V$_1$. **23(E).** To fall in attempt = not succeed. **24 (A).** Be aware of= be conscious of, be mindful of. Beware (used only in infinitive) = to warn against danger. **25(A).** Put off = postpone Here, put off should be used. **26(C).** Call around = phone many different places/ people Call on = visit somebody Hence, call around should be used here. **27(E).** Call around = phone many different places/ people Call on = visit somebody Hence, call around should be used here. **28(D).** Hang in = stay positive Hang up = end a phone call Hence, hang in should be used here. **29(D).** Think back = remember Hence, think back sould be used here. **30(D).** Cut in = interrupt Hence, cut in should be used here.

SSC-CHSL Exam
From Page 12

2(B).

O F F I C I A L
↓+2 ↓+2 ↓+2 ↓+2 ↓+2 ↓+2 ↓+2 ↓+2
Q H H K E K C N

Similarly,

L A N G U A G E
↓+2 ↓+2 ↓+2 ↓+2 ↓+2 ↓+2 ↓+2 ↓+2
N C P I W C I G

3(C).

S P I N S T E R
↓−1 ↓−1 ↓−1 ↓−1 ↓−1 ↓−1 ↓−1 ↓−1
R O H M R S D Q

Similarly,

S E M E S T E R
↓−1 ↓−1 ↓−1 ↓−1 ↓−1 ↓−1 ↓−1 ↓−1
R D L D R S D Q

4(D). 12 × 6 = 72 13 × 6 = 78

5(D). Except Sydney, all others are cities of United States. Sydney is a harbour city of Australia.

6(B).

W $\xrightarrow{+3}$ Z

U $\xrightarrow{+3}$ X

O $\xrightarrow{+3}$ R

But,

F $\xrightarrow{+3}$ G

7(A). Except 2378, the sum of digits in all other numbers is 14.

9122 ⇒ 9 + 1 + 2 + 2 = 14
1517 ⇒ 1 + 5 + 1 + 7 = 14
2345 ⇒ 2 + 3 + 4 + 5 = 14
But, 2378 ⇒ 2 + 3 + 7 + 8 = 20

8(D). The number 64 is a perfect square as well as a perfect cube.

8 × 8 = 4 × 4 × 4 = 64

9(A). Pentane (Refers to Five) ; Hexane (Refers to Six); Heptane (Refers to Seven); Octane (Refers to Eight)

10(A).

E $\xrightarrow{+1}$ F $\xrightarrow{+1}$ G $\xrightarrow{+1}$ H $\xrightarrow{+1}$ I

I $\xrightarrow{+3}$ L $\xrightarrow{+1}$ M $\xrightarrow{+1}$ N $\xrightarrow{+1}$ O

O $\xrightarrow{+3}$ R $\xrightarrow{+1}$ S $\xrightarrow{+1}$ T

T $\xrightarrow{+3}$ W $\xrightarrow{+1}$ X

X $\xrightarrow{+3}$ A

11(C).

T $\xrightarrow{+10}$ D $\xrightarrow{+10}$ N $\xrightarrow{+10}$ X

U $\xrightarrow{+10}$ E $\xrightarrow{+10}$ O $\xrightarrow{+10}$ Y

12(A). 4 × 2+1 =9; 9 × 2 + 1 = 19; 19 × 2 + 1 = 39; 39 × 2 + 1 = 79

13(C). First Premise is Universal Negative (E-type). Second Premise is Particular Affirmative (I-type)

Some politicians are women.

No woman can vote.

I + E ⇒ O-type of Conclusion
'Some politicians cannot vote.'
Thus, neither Conclusion I nor Conclusion II follows.

14(D). M > K > L ; K > I; M > K > L > J;
M > K > L > J

15(D). Arrangement of words as per order in the dictionary :

(i) Examination
↓
(iii) Expenditure
↓
(iv) Experience
↓
(ii) Explicit

16(B).

N U M B E R
↓ ↓ ↓ ↓ ↓ ↓
1 5 6 8 9 7
B A R E N
↓ ↓ ↓ ↓ ↓ ↓
8 4 7 7 9 1

Therefore,

R U B B E R
↓ ↓ ↓ ↓ ↓ ↓
7 5 8 8 9 7

17(C). First Column : 2 × 6 × 7 + (1)² [7 − 6 = 1] = 84 + 1 = 85; Second Column : 2 × 8 × 9 + (1)²[9 − 8 = 1] = 144 + 1 = 145; Third Column : 2 × 12 ×14 + (2)²[14−12 = 2] = 336 + 4 = 340.

18(A).

K ⇒ −	L ⇒ ÷
M ⇒ +	D ⇒ ×

96 L 4 K 6 M 11 D 9 = ?
⇒ ? = 96 ÷ 4 − 6 +11 × 9
⇒ ? = 24 − 6 + 99
⇒ ? = 123 − 6 = 117

19(C). C [D] D E/[C] D D [E]/
C [D] D E

20(C).
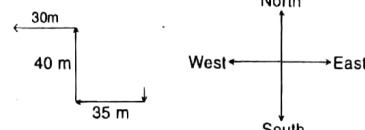
21(B). P ⇒ 01, 30, 33, 42, 95 ; R ⇒ 04, 13,22,31,34,40; I ⇒ 00,02, 11 ; M ⇒ 03, 65, 79, 97 ; E ⇒24, 32, 41,56

| Option	P	R	I	M	E
(A)	42	31	~~20~~	79	57
(B)	33	34	11	97	56
(C)	95	13	02	~~14~~	~~83~~
(D)	30	22	00	65	~~88~~

22(A). Ankur is brother of Sandeep.Ankur and Sandeep are sons of Kishan. Baljor is Kishan's father. Therefore, Ankur is grandson of Baljor.

23(C).

24(A). All doctors are graduates. Some graduates are doctors. All professors are graduates. Some graduates are professors.

Some professors are doctors,and vice-versa.
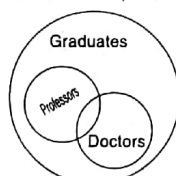
25(B).

GENERAL AWARENESS

26(A). 27(D). 28(B). 29(D). 30(A). 31(A). 32(D). 33(B). 34(A). 35(B). 36(A). 37(B). 38(D). 39(D). 40(A). 41(D). 42(B). 43(B). 44(C). 45(A). 46(B). 47(B). 48(A). 49. (B) 50.(A).

QUANTITATIVE APTITUDE

51(C). Distance between thief and policeman = 400 metre. Relative speed of policeman with respect to thief

= (9 − 5) km/hr = 4 km/hr = $\left(\dfrac{4 \times 5}{18}\right)$ m/sec = $\dfrac{10}{9}$ m/sec

Time taken in overtaking the thief = $\left(\dfrac{400}{\frac{10}{9}}\right)$ second =

$\left(\dfrac{400 \times 9}{10}\right)$ second = 360 second

Distance covered by thief = Speed × Time = $\left(5 \times \dfrac{5}{18} \times 360\right)$ metre = 500 metre

52(C). 2x − 3(4 − 2x) < 4x − 5 < 4x + $\dfrac{2x}{3}$

⇒ 2x − 12 + 6x < 4x − 5 < $\dfrac{12x + 2x}{3}$

⇒ 8x −12 < 4x − 5 < $\dfrac{14x}{3}$
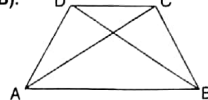⇒ 24x − 36 < 12x −15 < 14x
When x = 0, −36 < −15 < 0

53(A). $\dfrac{1}{\tan A + \cot A}$ = x

⇒ $\dfrac{1}{\dfrac{\sin A}{\cos A} + \dfrac{\cos A}{\sin A}}$ = x

⇒ $\dfrac{1}{\dfrac{\sin^2 A + \cos^2 A}{\sin A.\cos A}}$ = x

⇒ x = $\dfrac{1}{\dfrac{1}{\sin A.\cos A}}$ = sinA.cosA

54(B).

In an isosceles trapezium, AB ll CD ; AD = BC;AC = BD
The angles of base are equal, i.e. ∠A = ∠B; ∠C = ∠D ; ∠A + ∠D = ∠B + ∠C = 180°

55(C). Maximum marks of examination = x (let) According to the question, 25% of x = 47 + 43

⇒ $\dfrac{x \times 25}{100}$ = 90

⇒ $\dfrac{x}{4}$ = 90 ⇒ x = 4 × 90 = 360

56(B).
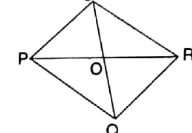
The diagonals of a rhombus bisect each other at right angles.
Co-ordinates of point 'O' = $\left(\dfrac{x_1 + x_2}{2}, \dfrac{y_1 + y_2}{2}\right)$ = $\left(\dfrac{4−2}{2}, \dfrac{2+0}{2}\right)$ =(1, 1)

Slope of straight line PR = $\dfrac{y_2 − y_1}{x_2 − x_1}$ =

$\dfrac{0 − 2}{−2 − 4}$ = $\dfrac{−2}{−6}$ = $\dfrac{1}{3}$

PR⊥QS. Slope of QS = $-\dfrac{1}{\frac{1}{3}}$ = −3

[m₁m₂ = −1] Equation of straight line QS passing through point (1, 1) :
y−1 = −3(x−1)
⇒ y−1 = −3x+3
⇒ 3x+ y = 4

57(A). a−b = 11 and ab = 24
(a−b)² = 11²
⇒ a² + b²−2ab = 121
⇒ a² + b²−2×24 = 121
⇒ a² + b² = 121+48 = 169

58(D). According to the question, If principal = Rs. 100 then interest = Rs. 40.

Rate = $\dfrac{S.I.×100}{Principal × Time}$ = $\dfrac{40 × 100}{100 × 8}$ = 5% per annum.

59(A). $\theta = \dfrac{l}{r}$ radian = $\dfrac{11}{14}$ radian
π radian = 180°
1 radian = $\dfrac{180}{\pi}$

$\dfrac{11}{14}$ radian= $\dfrac{180}{22} × \dfrac{11}{14}$ = $\dfrac{180 × 11× 7}{22 × 14}$ =45°

60(C). Discount=Rs.(1,200−960)=Rs.240 If the rate of discount be x%, then x% of 1,200 = 240

⇒ $\dfrac{1200 × x}{100}$ = 240

⇒ 12x = 240
⇒ x = $\dfrac{240}{12}$ = 20%

61(B). (x+3)² + (x−1)²
= x² + 2 × x ×3 + 3² + x²−2× x ×1 +12
= x² + 6x+9 + x²−2x + 1
= 2x² + 4x + 10 = 2(x² + 2x + 5)

62(C). Prime numbers between 58 and 68
⇒ 59, 61 and 67.Required sum = 59 + 61+67 = 187

63(A). Volume of sand in cylindrical vessel
= πr²h = π × (4)² × 5 cu. cm. = 80π cu. cm.
According to the question, volume of conical shape = 80π cu. cm.

⇒ $\dfrac{1}{3}$πR²H = 80π

⇒ $\dfrac{1}{3}$ × 6 × 6 × H = 80

⇒ 12H = 80

⇒ H = $\dfrac{80}{12}$ = 6.67 cm.

64(D). Let the C.P. of sweater be Rs. 100 and its marked price be Rs. x
According to the question,

x × $\dfrac{80}{100}$ =128

⇒ x × $\dfrac{4}{5}$ = 128

⇒ x = $\dfrac{128 × 5}{4}$ =Rs. 160

When discount = 14%, then S.P. of sweater
=160×(100−14)% = $\dfrac{160 × 86}{100}$ = Rs. 137.6
C.P. = Rs. 100.Profit per cent = 37.6%

65(A).

(11,5) (2,1) (x,y)
A——————P——————B

Co-ordinates of the mid-point of line

segment $\left(\dfrac{x_1 + x_2}{2}, \dfrac{y_1 + y_2}{2}\right)$

$\dfrac{11 + x}{2}$ = 2 ⇒ 11 + x = 4
⇒ x = 4 −11 = −7

and $\dfrac{5 + y}{2}$ = 1

⇒ y+5 = 2 ⇒ y = 2−5 = −3
Co-ordinates of B ⇒ (−7, −3)

66(A). Let the number of the selected candidates be 4x Unselected candidates = x. According to the question, Total new applicants = 5x− 90.Selected candidates = 4x− 20.Unselected candidates = 5x− 90−4x+20 = x−70

$\dfrac{4x − 20}{x − 7}$ = $\dfrac{5}{1}$

⇒ 5x−350 = 4x−20
⇒ 5x−4x = 350−20
⇒ x = 330
Required number of total original applicants = 5x = 5× 330 = 1,650

67(A). Average of 25 consecutive odd numbers = 55
Mid number i.e. 13th number = 55
25th number = 55 + 2 × 12 = 55 + 24 = 79

68(C). Let the two digit number be 10x+y.
According to the question,
xy = 24 .... (i)
and, 10x+ y+ 45 = 10y+ x
⇒ 10y+x−10x−y = 45
⇒ 9y−9x = 45
⇒ 9(y−x) = 45
⇒ y−x = $\dfrac{45}{9}$ = 5... (ii)
(x+y)²=(y−x)²+4xy=5²+4×24=25+96=121
⇒ x+y = $\sqrt{121}$ = 11 (iii)
On adding equations (ii) and (iii),
y−x+ x+ y = 5+11
⇒ 2y = 16 ⇒y = 8
xy = 24 ⇒ 8x = 24

SSC-CHSL Exam
From Page 14

$\Rightarrow x = \dfrac{24}{8} = 3$

Required number = $10x + y = 10 \times 3 + 8 = 38$

69(C). $\sin \dfrac{11\pi}{6} = \sin \left(2\pi - \dfrac{\pi}{6}\right) = -\sin \dfrac{\pi}{6} = -\dfrac{1}{2}$

70(B). Number of cakes baked by sister in 1 hour = $\dfrac{50}{25}$ = 2. Number of cakes baked by mummy and sister in 1 hour = $\dfrac{75}{15}$

Number of cakes baked by mummy In 1 hour = $5 - 2 = 3$

Number of cakes baked by mummy in 15 hours = $3 \times 15 = 45$

71(C). $\sin C - \sin D = 2 \cos \dfrac{C+D}{2} = \sin \dfrac{C-D}{2} = x$

72(C). Required per cent = $\dfrac{40}{80} \times 100 = 50$

73(A). Respective production : January $\Rightarrow$ 480

February $\Rightarrow$ 1,050 − 480 = 570

March $\Rightarrow$ 1,630 − 1,050 = 580

April $\Rightarrow$ 1,970 − 1,630 = 340

May $\Rightarrow$ 2,670 − 1,970 = 700

Total production of cars in May and April = 700 + 340 = 1040

74(B). Total distance covered = (2.5 + 4 + 2.5 + 3.5 + 0.5 + 2.5 + 1.5) km. = 17km.

5 km. ≡ 400 calories

Hence, 17 km. = $\left(\dfrac{400}{5} \times 17\right)$ calories = 1,360 calories

75(D). Total expenditure = Rs. (12 + 6 + 3 + 4 + 3) lakhs = Rs. 28 lakhs. Total expenditure on raw materials and interest together = Rs. 16 lakhs.

Required per cent = $\dfrac{16}{28} \times 100 = 57.14\%$

ENGLISH LANGUAGE

76(C). Plan (Verb) = to intend or expect to do something ; to make detailed arrangements for something you want to do in the future. **77(D). 78(B). Thesplan** = relating to drama and the theatre, an actor or actress; **Oxidiser** = a chemical which a fuel requires to burn; **Approval** = acceptance, agreement; **Secrete** = produce and discharge. **79(A). 80(C).** The period of time is evident. Hence, passive of Present Perfect i.e. have been .....should be used here. **81(C).** Turn a blind eye = pretend not to notice ; overlook; disregard ; neglect; ignore **82(D).** said to ⇒ asked. Where is the film studio ? ⇒ Where the film studio was. (assertive) **83(D). Sheath (Noun)** = covering ; cover ; coat ; case, a close fitting cover for the blade of a knife or sword. **84(C). Prime (Verb)** = to make ready for use or action ; prepare someone for a situation, typically by supplying them with relevant information. **85(D). 86(D).** Infinitive + Subject + had been (to be) + V_3 + by + Object. **87(D). Pilferer (Noun)** = a thief who steals without using violence ; snitcher ; burglar ; stealer. **88(B). 89(B). 90(C). Genre (Noun)** = a style or category of art, music or literature; category; class ; categorization; group **91(D).** Up a blind alley = following a course of action that is certain to lead to an undesirable outcome. **92(A). Tapestry (Noun)** = a piece of thick textile fabric with pictures or designs. **Emanate (Verb)** = issue or spread out from a source Insisted = to be emphatic, firm or resolute. **Coalesce (Verb)** = to come together to form one mass or whole. **93(D).** Emulation (Noun) = effort to match or surpass a person or achievement **94(C).** In comparative degree, than I.....should be used. **95(D). 96(A). 97(D). 98(C). 99(C).** Ominous (Adjective) = giving the worrying impression that something bad is going to happen. **100(B).**

Navik   From Page 1

recognised by Central / State Government with at least 50% (45% marks for SC / ST / Sportsperson of National level / Sons of Coast Guard) marks in aggregate of Mathematics & Physics subjects and secured at least 50% marks (45% marks for SC / ST / Sportsperson of National level / Sons of Coast Guard) in aggregate are eligible to apply. Age should be between 18 and 22 years that means candidates

should be born between 01.08.1996 and 31.07.2000. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Height of the candidate should be at least 157 cms and chest should be well proportionate with expansion capacity of minimum 5 cms. Weight should be proportionate to the height & age. Candidates belonging to hill areas & tribal areas will get relaxation in height as per the Central Govt. Rules. Candidates should not have cardio vascular disease, infection of ears, psychiatric ailment, varicose vein, corrective surgery (for eye sight), surgical deformities like knock knee, flat feet or any other disease or disability, which is likely to interfere the efficient performance of the duties. Candidates should possess normal hearing ability. Eye sight should be minimum 6/6 in better eye & 6/9 in worse eye without wearing glasses. Basic Pay will be Rs.21,700/- p.m.

Mode of Selection : Candidates will be primarily shortlisted on the basis of marks obtained in the 12th standard examination. Shortlisted candidates will be called for Written Test, to be held tentatively in the month of February/ March, 2018. State wise centre of the examination is as follows : **(i)** For the residents of West Bengal : Haldia, **(ii)** For the residents of Bihar & Jharkhand : Kolkata, **(iii)** For the residents of Odisha : Paradip, **(iv)** For the residents of Sikkim, Tripura, Assam, Manipur, Arunachal Pradesh, Meghalaya, Mizoram & Nagaland : Guwahati. The Written Test will consist of objective type questions based on Mathematics, Physics, Basic Chemistry, General English, General Knowledge, Current Affairs, Quantitative Aptitude & Reasoning. The date, time & venue of the Written Test will be sent through the registered e-mail ID, (given by the candidates at the time of applying on-line). Qualified candidates will be called for Physical Fitness Test (PFT), comprising the following events : (1) 1.6 kms Run to be completed within 7 minutes, (2) 20 Squat ups (Uthak - Baithak), (3) 10 Push ups. Physically fit candidates, will be called for Medical Examination to be held at INS Chilka. Zone wise select-list will be uploaded tentatively in the month of July, 2018 on the website as mentioned below. Medically fit candidates will have to undergo Basic Training, to be commenced tentatively in the month of August, 2018 at INS Chilka followed by Sea Training & Professional Training in the allotted trade. At the time of appearing for the Written Test, candidates will have to produce the original copies of the following documents : (1) 3 print-outs of the on-line Application Form, (2) 10 passport size recent coloured photographs with blue background, (3) All Certificates & Mark Sheets in support of Date of Birth, Educational Qualification, Caste (for OBC / SC / ST), (4) Photo Identity proof viz. Aadhar Card / PAN Card / Passport / Driving License / Voter ID Card, (5) Domicile Certificate issued by Tehsildar / Sub District Magistrate / District Magistrate.

How to Apply : Candidates will have to apply on-line through this website : www.joinindiancoastguard.gov.in The website link will be available from 24.12.2017 to 02.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. Before applying on-line, candidates should go through the detailed notification available under the link entitled as *'Recruitment of Naviks (10+2 Entry) 02/2018 Batch'*. Afterwards, candidates will have to select the *'Navik General Duty'* entry button. Thereafter, candidates will have to click on *'I Agree'* button to open the on-line application form & fill in all the requisite fields properly. Candidates should also fill in all (*) Asterisk mark entries. After that, candidate will have to verify the data, what he put in the application form. After verification, application should be submitted by clicking *'Submit'* button. After that, candidates are required to obtain 3 print-outs of the computerised system generated application form containing a unique application number. Those copies duly signed with photographs must be carried by the candidate to the Recruitment Centre. Last date for the submission of the on-line application is 2nd January, 2018.

Source : Available on www.joinindiancoastguard.gov.in

63 Skilled Assistant
From Page 1

Candidates, who have passed 10th standard examination from any recognised Board / Council are eligible for the post. Candidates, who have passed Trade Certificate Course from any recognised ITI may also apply. Proficiency in swimming is desirable. Age should be between 18 and 30 years as on 22.01.2018. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Entry Level Pay will be Rs.18,000/-. Number of vacancy is 63 (UR : 18, SC : 12, ST : 08, OBC : 25).

Mode of Selection : Selection will be made primarily on the basis of marks obtained in the 10th standard / ITI examination. Shortlisted candidates will be called for Physical Fitness Test to be qualifying in nature. The date, time & venue of the tests will be intimated in due course.

How to Apply : Candidates will have to apply on-line through this website : www.cwc.gov.in within 22.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. At first, candidates will have to visit the website & open the appropriate on-line application form. Thereafter, candidate will have to fill in all the required fields and upload his / her passport size recent coloured photograph & signature in specific digital format. After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking *'Submit'* button. After that, candidates are required to obtain the print-out of the computerised system generated application form.

Further details will be available on this website : www.cwc.nic.in in due course.

Source : Available on www.cwc.nic.in

Teacher in Rail
From Page 1

Railway H.S. School & Netaji Vidyapith Railway Higher Secondary School on contractual basis.

Post : Post Graduate Teacher in Arts (Economics).

Post Graduates in Economics of any recognised University / Institute are eligible for the post. In addition to this qualification, candidates should have passed B.Ed. Course from any recognised Institute. Gross Salary will be Rs.27,500/- p.m. Selected candidates will be posted at Railway H.S. School, Maligaon. Number of vacancy is 01 (OBC).

Post : Trained Graduate Teacher in Arts (PTI).

Graduates in any discipline of any recognised University / Institute are eligible for the post provided they should have passed Diploma Course in Physical Training from any recognised Institute. Candidates who have passed B.P.Ed. Course from any recognised University / Institute after passing 12th standard examination may also apply. Gross Salary

will be Rs.26,250/- p.m. School wise number of vacancy is as follows : (i) Railway H.S. School, Lumbding : 01 (UR), (ii) Railway H.S. School, Maligaon : 01 (UR).

Post : Trained Graduate Teacher in Science.

Graduates in Pure Science of any recognised University / Institute are eligible for the post. In addition to this qualification, candidiases should have passed B.Ed. Course from any recognised Institute. Candidate should also have passed Teachers Eligibility Test (TET) conducted by the appropriate Govt. in accordance with the NCTE guidelines. Gross Salary will be Rs.26,250/- p.m. Selected candidates will be posted at Netaji Vidyapith Railway Higher Secondary School, Maligaon. Number of vacancy is 02 (OBC : 01, SC : 01).

Post : Primary Teacher.

Candidates who have passed 12th standard examination from any recognised Board / Council with at least 50% marks or its equivalent grade In aggregate are eligible for the post. Graduates in any discipline of any recognised University / Institute with at least 50% marks or its equivalent grade in aggregate may also apply. In addition to this qualification, candidates should have passed B.Ed. / D.El.Ed. / JBT / PTT Course from any recognised Institute. Candidate should also have passed Teachers Eligibility Test (TET) conducted by the appropriate Govt. in accordance with the NCTE guidelines. Gross Salary will be Rs.21,250/- p.m. School wise number of vacancy is as follows : (i) Railway H.S. School, Maligaon : 01 (UR), (ii) Netaji Vidyapith Railway Higher Secondary School, Maligaon (English) : 03 (UR).

For all posts : Age should be between 18 and 65 years.

Mode of Selection : Selection will be made through Walk-in-Interview to be held on 5th January, 2018 at 10 a.m. For engagement to the Railway H.S. School, Maligaon & Netaji Vidyapith Railway Higher Secondary School, Maligaon, the walk-in-interview will be conducted at Office of the General Manager (P), C/o GM Office Complex, Maligaon, NF Railway, Guwahati. For engagement to the Railway H.S. School, Lumbding, the walk-in-interview will be conducted at Office of the Divisional Personnel Officer, Lumbding, C/o Divisional Railway Manager, Lumbding, Assam.

How to Appear : At the time of appearing for the interview, candidates must carry the following documents : (1) The duly filled in application form to be downloaded from the website www.nfr.indianrailways.gov.in, (2) 2 copies of recent passport size photographs, (3) Original as well as attested photostat copies of all certificates & mark sheets in support of Date of Birth, Educational Qualification, Caste (for SC / ST / OBC), Disability (for Physically challenged candidates), Discharge (for Ex-Servicemen), Experience (if any).

Source : Available on www.nfr.indianrailways.gov.in

810 Tradesman
From Page 1

Number of vacancy is 110 (UR : 65, SC : 09, ST : 11, OBC : 25).

Post : Tradesman Mate.

Candidates, who have passed 10th standard examination from any recognised Board / Council are eligible for the post. Scale of Pay is Rs 5,200/- – 20,200/- with Grade Pay of Rs.1,800/-. Number of vacancy is 561 (UR : 304, SC : 42, ST : 39, OBC : 176).

Post : Fireman.

Candidates, who have passed 10th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should be physically fit & capable of performing strenuous duties. Height of the candidates should be at least 165 cms (162.5 cms for SC / ST & the residents of hill areas) without wearing shoes and chest should be at least 81.5 cms with expansion capacity of minimum 3.5 cms. Weight should be at least 50 kgs. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,900/-. Number of

vacancy is 61 (UR : 34, OBC : 07, SC : 04, ST : 16).

Post : Safaiwala / Gardener / Messenger / Female Searcher / Washerman.

Candidates, who have passed 10th standard examination from any recognised Board / Council are eligible for those posts. In addition to this qualification, candidates should have 1 year experience in relevant trade. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,800/-. Post wise number of vacancy is as follows : (i) Safaiwala : 26 (UR : 16, ST : 02, OBC : 08), (ii) Messenger : 14 (UR : 08, OBC : 06), (iii) Gardener : 01 (UR), (iv) Female Searcher : 04 (UR : 02, OBC : 02), (v) Washerman : 02 (UR).

Post : Telephone Operator Gr.II.

Candidates who have passed 10th standard examination from any recognised Board / Council with English as a compulsory subject are eligible to apply. In addition to this qualification, candidates should have proficiency in handling PBX Board & also have fluency in spoken English. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,900/-. Number of vacancy is 02 (UR).

Post : Stenographer Gr.II.

Candidates, who have passed 12th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have shorthand speed of at least 80 w.p.m. & ability to transcribe the matter on computer in English / Hindi. Scale of Pay is Rs.5,200/- –

20,200/- with Grade Pay of Rs.2,400/-. Number of vacancy is 02 (UR).

Post : Material Assistant (Superintendent Store).

Graduates in any discipline of any recognised University / Institute are eligible to apply. Candidates who have passed Diploma Course in Material Assistant / any stream of Engineering may also apply. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.2,800/-. Number of vacancy is 11 (UR : 05, SC : 01, ST : 02, OBC : 03).

Post : Cook.

Candidates, who have passed 10th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should have passed Diploma Course in Cooking from any recognised ITI / Vocational College. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,900/-. Number of vacancy is 05 (UR : 04, OBC : 01).

Post : Electrician / Carpenter & Joiner / Tailor / Vehicle Mechanic / Tin & Copper Smith / Fitter (MV).

Candidates, who have passed Trade Certificate Course in relevant trade from any recognised ITI after passing 10th standard examination from any recognised Board / Council are eligible for the post. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,900/-. Post wise number of vacancy is as follows : (i) Electrician : 02 (UR), (ii) Carpenter & Joiner : 03 (UR), (iii) Tailor : 01 (UR), (iv) Vehicle Mechanic : 01 (OBC), (v) Tin & Copper Smith : 01 (UR), (v) Fitter (MV) : 01 (UR).

Post : Civilian Motor Driver (Ordinary Grade).

Candidates, who have passed 10th standard examination from any recognised Board / Council are eligible for the post. In addition to this qualification, candidates should posses driving licence for Heavy Vehicle & Motor Cycle. Candidates must also have 2 years practical experience in driving Heavy Motor Vehicles. Scale of Pay is Rs.5,200/- – 20,200/- with Grade Pay of Rs.1,900/-. Number of vacancy is 02 (UR).

For all posts : Age should be between 18 and 25 years as on 05.01.2018. OBC & SC / ST candidates will get relaxation in age by 3 years & 5 years respectively. Ex-Servicemen & Physically challenged candidates will get exemption in age as per the Govt. Rules.

Mode of Selection : Selection will be made on the basis of Physical / Practical / Skill Test followed by Written Examination. For the post of 'Fireman', Physical Efficiency Test will consist of the following events : (i) Run 1.6 kms to be completed in 6 minutes, (ii) Carrying a man of 63.5kgs to a distance of 183 metres in 96 seconds, (iii) Clearing 2.5 metres wide ditch landing on both feet (long jump), (iv) Climbing 3 metres vertical rope using hands & feet. For all posts, selected candidates will be called for Written Test. The Written Exam of 2 hours

duration will consist of multiple choice objective type questions based on the following 4 subjects : (i) General Intelligence & Reasoning – 25 marks, (ii) Numerical Aptitude – 25 marks, (iii) General English & General Awareness – 50 marks, (iv) Specialised Topic – 50 marks. The question paper of the Written Test will be set in English & Hindi. The date, time & venue of the test will be intimated in due course.

How to Apply : Candidates will have to apply on-line through this website : www.aocrecruitment.gov.in within 05.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. At first, candidates should visit the website & open the appropriate on-line application form. Thereafter, candidate will have to fill in all the required fields and upload his / her passport size recent coloured photograph & signature in specific digital format. After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking 'Submit' button. After that, candidates are required to obtain the print-out of the computerised system generated application form, which must be retained for future purpose. Last date for the submission of the on-line application is 5th January, 2018.

Source : Available on www.aocrecruitment.gov.in

35 Assistant
From Page 1

Post : Assistant Technology Manager (ATM).

Graduates / Post Graduates in Agriculture / Horticulture / Economics / Marketing / Veterinary Sciences / Animal Husbandry / Fisheries of any recognised University / Institute are eligible for the post. In addition to this qualification, candidates should have preferably 1 year experience in relevant trade. Number of vacancy is 26 (UR : 14, SC : 05, ST : 02, OBC-A : 03, OBC-B : 02).

Post : Block Technology Manager (BTM).

Graduates / Post Graduates in Agriculture / Horticulture / Agricultural Engineering / Veterinary Science / Dairy Science / Fishery Science / Forestry / Food Technology / Biotechnology / Sericulture / Home Science / Community Science and Food Nutrition & Dietetics of any recognised University / Institute are eligible for the post. In addition to this qualification, candidates should have at least 2 years (for Post Graduates) / 3 years (for Graduates) field experience in Agriculture related activities. Candidates should have passed 6-months computer certificate course from any recognised organisation. Number of vacancy is 09 (UR : 05, SC : 01, OBC : 01).

For both posts : Candidates must be conversant in reading & writing Bengali. Age should be within 45 years as on 01.01.2017.

Mode of Selection : Selection will be primarily made on the basis of performance in the qualifying exam. Shortlisted candidates will be called for further screening process for which admit card will be available from 15.01.2018 on the website www.hooghly.gov.in

How to Apply : Candidates will have to apply on-line through this website : www.hooghly.gov.in within 02.01.2018. Candidates are required to have a valid personal e-mail ID, which should be kept active during this recruitment process. At first, candidates should visit the website & open the appropriate on-line application form. Thereafter, candidate will have to fill in all the required fields and upload his / her passport size recent coloured photograph & signature in specific digital format. After that, candidate will have to verify the data, what he / she put in the application form. After verification, application should be submitted by clicking 'Submit' button. After that, candidates are required to obtain the print-out of the computerised system generated application form, which must be retained for future purpose. Last date for the submission of the on-line application is 2nd January, 2018.

Source : Available on www.hooghly.gov.in

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