



**SYAMA PRASAD MOOKERJEE PORT, KOLKATA**

**NOTICE No. 01**

**Reference Advertisement No. DR/25/14 dated 15.09.2025**

**Online Test for selection of Officers in Class-I entry level posts under SMP-K by**

**Direct Recruitment**

**Online Test Schedule:**

Day	Timings	Online MCQ Test for the posts of
17-01-2026 (Saturday)	<b>Session 1</b> <b>Reporting Time : 8:00 AM</b>	Assistant Manager (P&E)
		Assistant Manager (Finance)
		Assistant Manager (Safety)
		Sr. Assistant Secretary (Official Language)
	<b>Session 2</b> <b>Reporting Time : 11:30 AM</b>	Dy. Materials Manager

**General Instructions to the candidates:**

- ❖ The Online Test has been scheduled to be held on **17.01.2026 at Delhi, Mumbai, Kolkata, Chennai**. Details of the examination venue will be indicated in the Call Letter.
- ❖ Candidates are advised to download their Call Letter(s) and Information Handout from the link given in the website of SMP-K <https://smp.smpportkolkata.in/smpk/en/job-openings>. The link would be active from 29.12.2025 and would be open till 17.01.2026.
- ❖ Candidates are advised to adhere to the instructions mentioned in the Information Handout and Call Letter.
- ❖ Candidates need to bring the downloaded **Call letter(s)** and other requisite documents as per **information** provided in the **Information Handout** with him / her at the time of appearing for the online test. Please note that without Call letter downloaded from the website of the Syama Prasad Mookerjee Port, Kolkata, you will not be allowed to appear for the test. Call letter will not be dispatched by post separately.

Contd...2

(2)

- ❖ Candidature for the online test is **provisional** and subject to fulfilling all the eligibility conditions as indicated in the advertisement and the required medical standards. If, at any stage, it is found that the candidate is ineligible for the post, his/her candidature will be rejected.
- ❖ Request for change of examination centre/venue will not be entertained under any circumstances.
- ❖ For further details and subsequent developments in the matter, candidates are hereby advised to follow the website of Syama Prasad Mookerjee Port, Kolkata (<https://smp.smpportkolkata.in/>).

**Syllabus and Model Questions:**

<b>Name of the posts</b>	<b>Refer to the attachment</b>
Asstt. Manager (P&E)	Annexure-I
Asstt. Manager (Finance)	Annexure-II
Asstt. Manager (Safety)	Annexure-III
Sr. Asstt. Secretary (OL)	Annexure-IV
Dy. Materials Manager	Annexure-V

**Note** : The Model Questions attached herewith are for reference purpose only.

## **ANNEXURE-I**

**Name of post-** Asstt. Manager (P&E)

### **Syllabus:**

- (a) Test of Reasoning [Graduate Level]
- (b) Quantitative Aptitude [Graduate Level]
- (c) General Awareness [Graduate Level]
- (d) English Language [Graduate Level]
- (e) Technical questions in General Engineering

**Degree of Difficulty** : Moderate to Difficult

**Model Question paper (MCQ Type)** : The sample question paper for the sections of (a) Test of Reasoning, (b) Quantitative Aptitude, (c) General Awareness and (d) English Language for Direct Recruitment under SMPK is attached herewith. These questions (10 in each section) are for indicative purpose only. The actual number of questions and the marks distribution shall be as given under '*Structure of On-line examination*' in the Advertisement No. DR/25/14 dated 15.09.2025. Candidates are expected to have knowledge of the relevant and related topics mentioned in the question paper.

### **Test of Reasoning**

Directions (1-2): Read the given information carefully and answer the questions based on it:

Five spouses sit in two parallel rows in such a way that five persons sit in each row. All the females sit in row 1 and face south while all the males sit in row 2 and face north. The persons of both rows face each other. The persons of row 1 like different fruits and the persons of row 2 like different flowers. The fruits are Apple, Cherry, Mango, Orange, Papaya. The flowers are Lily, Rose, Daisy, Tulip, Orchid. The persons are B, C, E, K, L, M, R, S, U, T. The information of fruits, flowers and persons is not used in the same sequence as given.

Note: Spouses do not face each other. (Ex.- If A and B are spouse, then A and B do not face each other). The one who likes orange faces R's husband who sits just left of S. K does not sit at any end. Two persons sit between C and E's wife. The one who likes Daisy sits just right of B's husband. M's husband sits second to the right of the one who likes Orchid. L faces the one who likes rose and sits just left of the one who likes papaya. One person sits between M and the one who faces the one who likes Tulip. C sits just left of the one who likes cherry. The number of persons sit to the right of the one who likes papaya is same as the number of persons sit to the left of the one who likes apple. E is not M's husband. One person sits between S and T who is neither M's husband nor sits

at any end of the row. No person sits between the one who likes cherry and the one who faces M's husband. U doesn't sit adjacent to E

1. Who among the following is wife of K?

- (a) The one who sits just right of M
- (b) The one who faces E
- (c) The one who likes cherry**
- (d) The one who faces the one who likes Orchid

2. U's wife likes which of the following fruit?

- (a) Apple
- (b) Mango
- (c) Papaya
- (d) Orange**

3. In each question below, some statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows from the given statements, disregarding commonly known facts. Give answer -

Statements:

Only a few Tube is Well.

All Well is Pipe.

Some Well is not Tank.

Conclusions:

- I. All Tube being Tank is a possibility.
- II. All Pipe being Tank is a possibility.

**(a) If only conclusion I follows**

- (b) If only conclusion II follows
- (c) If either conclusion I or II follows
- (d) If neither conclusion I nor II follows
- (e) If both conclusions I and II follow

4. In a code language, COMPUTER is written as OCREPMTU. How will DAUGHTER be written in the same language?

- (a) READTHGU
- (b) ADTHREGU
- (c) ADREGUTH**
- (d) ADERUGTH

5. Which number will replace the question mark (?) in the following series?

98, 95, 86, 82, 66, ?, 36

- (a) 58
- (b) 60
- (c) **61**
- (d) 63

6. Select the combination of letters that when sequentially placed in the gaps of the given letter series will complete the series.

b\_bab\_bc\_abbba\_ba\_b

- (a) cbbac
- (b) cbabc
- (c) **cbbcb**
- (d) bcbab

7. Select the mirror image of the given when the mirror is placed to the right of the figure.



- (a)
- (b)
- (c)
- (d)

**Ans : (b)**

8. Read the given information carefully and answer the questions based on it: In a certain code language,

‘Several single port around’ is coded as ‘po xl yu vb’

‘Single event cost edition’ is coded as ‘rf zx vb wa’

‘Cost around public order’ is coded as ‘km po rf tf’

‘Public host winter edition’ is coded as ‘vc ur km zx’

What will the code for ‘Single winter order’?

(a) **vb ur tf**

(b) xl vc tf

(c) vb vc km

(d) po tf km

(e) yu vc ur

9. Find the missing number.

3	2	9
4	6	1
5	5	5
72	73	?

(a) 74

(b) 63

(c) 65

(d) **60**

10. In a certain code language,

‘A+B’ means ‘A is the mother of B’,

‘A-B’ means ‘A is the father of B’,

‘A \$ B’ means ‘A is the son of B’

‘A % B’ means ‘A is the sister of B’

‘A / B’ means ‘A is the wife of B’ and

‘A = B’ means “A is the brother of B”.

Which of the following means A is the daughter of K?

i.  $A + K / J - P = D$

ii.  $J \% P = K + A = D$

iii.  $K + A / P - D \% J$

iv.  $D + K = A / P - J$

(a) ii

(b) **iii**

(c) iv

(d) i

## Quantitative Aptitude

1. Mr. Ajay Dube invested a certain sum at simple interest for 4 years such that  $\frac{3}{7}$  of the sum was invested at 7% per annum,  $\frac{2}{5}$  of the sum at 9% per annum and the remaining at 11% per annum. If the total interest received is RS. 11880, the total sum invested is  
(a) **35000**  
(b) 38000  
(c) 32000  
(d) 30000s
2. A dishonest shopkeeper claims that he is selling mustard oil at Rs. 160/kg which cost him Rs. 120/kg but he gives 900 ml instead of 1 liter. What is his profit percentage?  
(a) **48.14%**  
(b) 57.12%  
(c) 57.18%  
(d) 42.28%
3. A cone of radius 90 cm and height 120 cm stands on its base. It is cut into 3 parts by 2 cuts parallel to its base such that the height of the three parts (from top to bottom) are in ratio of 1:23. What is the total surface area (in  $\text{cm}^2$ ) of the middle part?  
(a) 14600  
(b) **16500**  
(c) 17800  
(d) 18500
4. If a 6-digit number  $9xyz67$  is divisible by 7, 11 and 13, then what is the average of x,y and z?  
a)  $7\frac{2}{3}$   
(b)  **$7\frac{1}{3}$**   
(c)  $6\frac{2}{3}$   
(d)  $6\frac{1}{3}$
5. If x beakers of 100 ml containing 1:4 acid-water solution are mixed with y beakers of 200 ml containing 3: 17 acid-water solution then the ratio of acid to water in the resulting mixture becomes 19:91. Find x : y.  
(a) **5:3**  
(b) 3:5  
(c) 7:13  
(d) 13:7
6. Two persons P and Q together can complete another work 'Y' in  $(x+12)$  days, while Q and R together can complete the same work in  $(y - 2)$  days. If P, Q and R together can compete the work 'Y' in  $\frac{6x}{(y-7)}$  days, then find efficiency of 'Q' is what percent more or less than efficiency of 'P'.  
(a) 80%

- (b) 120%
- (c) 100%**
- (d) 150%

7. ABCD is a cyclic quadrilateral in which BD cuts AC at point O such that AO:CO= 2:1. If AB=14.3 cm, BC= 13 cm and CD= 18.7 cm. Find the value of AD.

- (a) 17 cm
- (b) 34 cm**
- (c) 51 cm
- (d) 42.5 cm

8.  $Ja^3 + Kb^3 + Lc^3 - 36abc = (Xa + Yb + Zc)(4a^2 + 9b^2 + 4c^2 - 6ab - 6bc - 4ac)$ , then find  $(J + K + L)(X + Y + Z) = ?$

- (a) 298
- (b) 301**
- (c) 307
- (d) 291

9. The cost of a diamond varies directly as the square of its weight. Once the diamond broke into four pieces with weight in the ratio of 4:3:2:1. When the piece was sold, the merchant got Rs. 63,000/- less than that of one piece. Find the original price of diamond.

- (a) Rs. 86,000/-
- (b) Rs. 80,000.5/-
- (c) Rs. 90,000/-**
- (d) Rs. 75,000/-

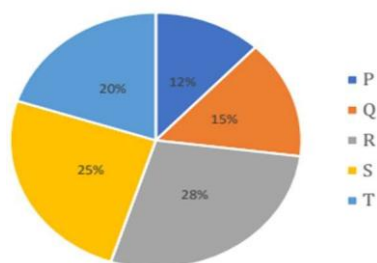
10. Given pie chart shows percentage distribution of students who play 'Pubg' from five different colleges (P, Q, R, S & T) and table shows number of students who have Royal elite pass. Read the data carefully and answer the questions.

Note- Student who play Pubg = Student who have royal elite pass + Student who do not have royal elite pass.

College	Students who have Royal elite pass
P	440
Q	500
R	880
S	700
T	360



Total students play Pubg = 6000



If total boys who do not have Royal elite pass is  $66\frac{2}{3}\%$  more than total girls who do not have Royal elite pass from S, then find ratio of total boys who do not have Royal elite pass from S to total students who do not have Royal elite pass P & R together?

- (a) 25 : 64
- (b) **25 : 54**
- (c) 25 : 58
- (d) 25 : 52

### General English

- In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that should interchange. If the sentence is correct as it is then, select option "No interchange required" as your choice.

The primitive **mirror** (A) society was built to **virtual** (B) the carefree state of **lived** (C) that people once **nature** (D) in.

- (a) A-C & B-D
- (b) B-C
- (c) **A-B & C-D**
- (d) A-D
- (e) No interchange required

- In each of the question given below, a statement has been given with a blank. Some words or phrases have been given in the options following the statement. Choose the most appropriate word or phrase that could fit in the statement to make it contextually meaningful and grammatically correct.

Because the critics called the play a \_\_\_\_\_ failure, few people purchased tickets for the stage production.

- (a) jocund

(b) mirthful

(c) **dismal**

(d) blithe

3. Each question is divided into four parts where one of the parts may or may not contain an error. Choose the part that has the error as your answer.

Despite the team's efforts (A)/ to find flaws, they couldn't identify (B)/ no flaws in the project, (C)/ making it a remarkable success. (D)

(a) A

(b) B

(c) **C**

(d) D

4. Rearrange the following sentences in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

(A) Moreover, in today's world, the influence of social media extends far beyond personal connections, shaping public opinion and driving societal change.

(B) These platforms enable users to share their thoughts, photos, and experiences with a global audience.

(C) However, the impact of social media on mental health and privacy concerns are growing issues. (D) Platforms like Facebook, Twitter, and Instagram have become integral parts of our daily lives.

(E) It's essential for users to be mindful of their online presence and digital footprint.

(F) Social media has revolutionized the way we connect and communicate in the digital age.

Rearrangement the sentences in proper order?

(a) ABDCFE

(b) **FDBACE**

(c) FDABCE

(d) FBADEC

5. Read the following passage and answer the given questions.

In the intricate tapestry of the Middle East's economic landscape, countries face enduring challenges, and Portugal's ministerial predicament sheds light on the shortcomings of past economic philosophies. Two ministers, Maria Silva and João Rodrigues, grapple with distinct

and now seemingly inadequate approaches, reflecting a negative tone in the quest to revive the economy.

Maria Silva, advocating a meticulous, methodical approach, once celebrated for its practicality, finds her strategies faltering in the face of evolving challenges. Studying the highs and lows of the economy and addressing root causes was once considered a robust strategy.

On the opposing front, João Rodrigues champions an immediate solution – the infusion of cash and monetary resources into the economy. This Keynesian approach, effective in the past, now reveals its flaws in the contemporary economic landscape. Rapid cash injections, while providing a quick fix, risk contributing to inflation and fail to address the deep-seated, structural issues at the heart of the economic challenges.

These once-successful policies from the 1980s are now proving inadequate in the current scenario. The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy. Conversely, Rodrigues' cash infusion strategy, while providing short-term relief, lacks the foresight needed to address the intricate challenges that have evolved over time.

The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches. The difficulty in reviving the Middle East's economy serves as a cautionary tale, emphasizing the imperative for forward-thinking policies that can navigate the intricacies of the contemporary economic environment.

Why does Maria Silva's methodical approach face challenges in the contemporary economic landscape, according to the passage?

(a) Owing to its unparalleled capacity to navigate the intricacies of the contemporary economic environment.

(b) As it achieved success in the 1980s, Maria Silva was overly confident about its effectiveness.

**(c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy**

(d) Since João Rodrigues was adopting a Keynesian approach, it impeded the success of Maria Silva's approach.

6. In the following questions, each set presents two sentences with two blanks. Select the most appropriate pair from the options provided to complete both the sentences and ensure coherence.

(I) As she delved into the \_\_\_\_\_ details of the ancient manuscript, she remained \_\_\_\_\_ to the passage of time, enraptured by the mysteries unfolding before her. (II) Lost in the \_\_\_\_\_ labyrinth of his thoughts, he remained \_\_\_\_\_ to the bustling city around him, contemplating the enigma of his own existence.

- (a) inundated, constructive
- (b) intricate, oblivious**
- (c) serendipitous, resilient
- (d) deliberate, hesitant

7. What is the synonym of the word 'Aplomb'?

- (a) Self-distrust
- (b) Insecurity
- (c) Confidence**
- (d) Diffidence

8. Select the option that can be used as a one-word substitute for the given group of words:

Something that pertains to controversy

- (a) Perusal
- (b) Laudatory
- (c) Putative
- (d) Polemical**

9. A sentence or a part of the sentence is highlighted. Four alternatives marked as (a), (b), (c) and (d) are given as substitutions for the highlighted part, one of which will improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the option "No improvement is required" i.e. (e).

She says that **when experienced bikers** heard what she was going to do, they ridiculed her and did not think it was possible to pull off.

- a) experienced bikers that
- b) experience bikers are
- c) while experienced bikers are
- d) No improvement is required.**

10. Select the most appropriate meaning of the given idiom.

Fly into a passion

- (a) To be aggressive at times
- (b) To become aggressive often
- (c) To become angry suddenly**
- (d) To be always angry

## **General Awareness**

1. Who composed Buddhacharita?  
(a) Kanishka I  
(b) Kanishka II  
(c) **Asvaghosha**  
(d) Charak
2. Which of the following does not come under Fundamental Duty?  
(a) To promote harmony  
(b) To safeguard public property  
(c) **To protect freedom of speech and expression**  
(d) To protect and improve the natural environment
3. What do we call a device which generates electric energy using chemical energy?  
(a) Potentiometer  
(b) Resistor  
(c) **Cell**  
(d) Metre bridge
4. Which organization recently released the Review of Maritime Transport 2024 report?  
(a) World Bank  
(b) United Nations Development Programme (UNDP)  
(c) **United Nations Conference on Trade and Development (UNCTAD)**  
(d) International Monetary Fund (IMF)
5. Recently, the Indian Space Research Organisation has launched its first analogue space mission in which city?  
(a) **Leh**  
(b) Jaisalmer  
(c) Chennai  
(d) Visakhapatnam
6. Revenue-neutral rate (RNR) is a component of which of the following taxes in India?  
(a) **Goods and Services Tax (GST)**  
(b) Income tax  
(c) Customs  
(d) Excise duty<sup>3</sup>
7. From time to time, the “International Debt Report” is released by which organization?  
(a) International Monetary Fund  
(b) **World Bank**  
(c) World Economic Forum  
(d) Asian Development Bank

8. India has launched an operation by what name to provide emergency relief in the wake of typhoon 'Yagi' in Laos, Myanmar and Vietnam?
- (a) **Operation Sadbhav**
  - (b) Operation Control
  - (c) Operation Help
  - (d) Operation Rahat
9. In which state, the country's first 'Rice ATM' has been launched recently for ration card beneficiaries?
- (a) Haryana (Karnal)
  - (b) Bihar (Purnia)
  - (c) **Odisha (Bhubaneswar)**
  - (d) Jharkhand (Dumka)
10. Recently, ISRO has successfully landed which Reusable Launch Vehicle (RLV) for the third consecutive time?
- (a) Dushyant
  - (b) Lotus
  - (c) **Pushpak**
  - (d) Tejas

# Model Question Paper

Written Test for selection of Asstt. Manager under P&E Division, HDC.

## Subjective Test (MCQ)

### Section - A

**Full Marks: 100**

**Qualifying Marks: 50**

General Question on Electrical Engineering and Mechanical Engineering: (No. of question is 50 and each question carries 2 marks)

**Sl. No. 1** A 3V DC supply with an internal resistance of  $2\Omega$  supplies a passive nonlinear resistance characterized by the relation  $V_{NL} = I_{NL}^2$ . The power dissipated in the nonlinear resistance is

- |         |         |
|---------|---------|
| a 1.0 W | b 1.5 W |
| c 2.0 W | d 3.0 W |

**Ans 1. (a)**

**Sl. No. 2** Three parallel resistive branches are connected across a DC supply. What will be the ratio of the branch Currents  $I_1:I_2:I_3$ , if the branch resistances are in the ratio of  $R_1:R_2:R_3 :: 2:4:6$  ?

- |         |         |
|---------|---------|
| a 3:2:6 | b 2:4:6 |
| c 6:3:2 | d 6:2:4 |

**Ans 2. (c)**

**Sl. No. 3** A solid cylindrical conductor of radius 'R' carrying a current 'I' has a uniform current density. The magnetic field intensity 'H' inside the conductor at the radial distance 'r' ( $r < R$ ) is

- |              |                   |
|--------------|-------------------|
| a Zero       | b $Ir/2\pi R^2$ . |
| c $1/2\pi r$ | d $IR^2/2\pi r^3$ |

**Ans 3. (b)**

**Sl. No. 4** Materials subjected to rapid reversals of magnetism should have

- |   |   |
|---|---|
| a high permeability and low hysteresis loss | b large B-H loop area                   |
| c large coercivity and high retentivity     | d low permeability and large coercivity |

**Ans 4. (a)**

**Sl. No. 5** The cores in electrical machines are generally made of laminations with a view to reduce

- |                         |   |
|-------------------------|---|
| a the eddy current loss | b the copper loss                             |
| c the hysteresis loss   | d eddy current, hysteresis and copper losses. |

**Ans 5. (a)**

**Sl. No. 6** In an ac series RLC circuit, the voltage across R and L is 20 V, voltage across L and C is 9 V and voltage across RLC is 15 V. What is the voltage across C?

- a 12V
- b 7V
- c 16V
- d 21V

**Ans 6. (b)**

**Sl. No. 7** A lossy capacitor is represented by an ideal capacitor C with a high resistance R in parallel. What is the Q of the circuit at frequency  $\omega$ ?

- a  $\omega CR$
- b  $(\omega C)/R$
- c  $R/(\omega C)$
- d  $1/(\omega CR)$

**Ans 7. (d)**

**Sl. No. 8** How many segments will be there for the commutator of a 6-pole DC machine having a simple wave-wound armature with 72 slots?

- a 68
- b 70
- c 72
- d 66

**Ans 8. (c)**

**Sl. No. 9** In a dc machine, which of the following statements is true?

- a Compensating winding is used for neutralizing armature reaction while interpole winding is used for producing residual flux.
- b Compensating winding is used for improving commutation while interpole winding is used for neutralizing armature reaction.
- c **Compensating winding is used for neutralizing armature reaction while interpole winding is used for improving commutation**
- d Compensating winding is used for improving commutation while interpole winding is used for producing residual flux

**Ans 9. (c)**

**Sl. No. 10** Consider the following statements:  
The armature torque in a dc motor is a function of  
1. Field flux  
2. Armature current  
3. Speed  
4. Damping  
Which of the above statements is/are correct?

- a 1, 2, 3 and 4.
- b 1 and 2 only
- c 3 and 4 only.
- d 4 only.

**Ans 10. (b)**



**Sl. No. 11** Consider the following statements:

- (i) The compensating coil of a low power factor wattmeter compensates the effect of the impedance of the current coil.
- (ii) The compensating coil of a low power factor wattmeter compensates the effect of the impedance of the voltage coil circuit.

- a (i) is true but (ii) is false.
- b (i) is false but (ii) is true.
- c both (i) and (ii) are true.
- d both (i) and (ii) are false.

**Ans 11. (b)**

**Sl. No. 12** The complete set of only those Logic Gates designated as Universal Gates is

- a NOT, OR and AND Gates
- b XNOR, NOR and NAND Gates.
- c **NOR and NAND Gates.**
- d XOR, NOR and NAND Gates.

**Ans 12. (c)**

**Sl. No. 13** A 230 V , 50Hz, 4 pole, single-phase induction motor is rotating in the clockwise (forward) direction at a speed of 1,425 rpm. If the rotor resistance at standstill is  $7.8 \Omega$ , then the effective rotor resistance in the backward branch of the equivalent circuit will be

- a  $2 \Omega$
- b  **$4 \Omega$**
- c  $78 \Omega$
- d  $156 \Omega$

**Ans 13. (b)**

**Sl. No. 14** For an induction motor, operating at slip  $s$ , the ratio of gross power output to air gap power is equal to

- a  $(1-s)^2$
- b  **$(1-s)$**
- c  $\sqrt{(1-s)}$
- d  $(1-\sqrt{s})$

**Ans 14. (b)**

**Sl. No. 15** In transformers, which of the following statements is valid?

- a In an open-circuit test, copper losses are obtained while in short-circuit test, core losses are obtained
- b In an open-circuit test, current is drawn at high power factor.
- c **In an open-circuit test, current is drawn at low power factor**
- d In a short-circuit, current is drawn at zero power factor.

**Ans 15. (c)**

**Sl. No. 16** Two transformers are to be operated in parallel such that they share load in proportion to their kVA ratings. The rating of the first transformer is 500 kVA and its **pu** leakage impedance is 0.05 pu. If the rating of second transformer is 250 kVA, its **pu** leakage impedance is

- |        |               |
|--------|---------------|
| a 0.20 | b 0.025       |
| c 0.05 | d <b>0.10</b> |

**Ans 16. (d)**

**Sl. No. 17** A three- phase synchronous motor connected to AC mains is running at full load and unity power factor. If its shaft load is reduced by half, with field current held constant, its new power factor will be

- |            |                                    |
|------------|------------------------------------|
| a unity.   | b <b>leading</b>                   |
| c lagging. | d dependent on machine parameters. |

**Ans 17. (b)**

**Sl. No. 18** Consider the following statements:

The armature torque in a DC motor is a function of

- |               |             |
|---------------|-------------|
| 1. Field flux | 2. Armature |
| 3. Speed      | 4. Damping  |

Which of the above statements is/are correct?

- |                        |                |
|------------------------|----------------|
| a 1,2,3 and 4          | b 3 and 4 only |
| c <b>1 and 2 only.</b> | d 4 only       |

**Ans 18. (c)**

**Sl. No. 19** In a single-phase induction motor driving a fan load, the reason for having a high resistance rotor is to achieve

- |                        |                              |
|------------------------|------------------------------|
| a low starting torque. | b <b>quick acceleration.</b> |
| c high efficiency.     | d reduced size.              |

**Ans 19. (b)**

**Sl. No. 20** For a P-pole machine, the relation between electrical and mechanical degrees is

- |  |  |
|--|--|
| a $\Theta_{elec} = (2/P)\Theta_{mech}$ | b $\Theta_{elec} = (4/P)\Theta_{mech}$ |
| c $\Theta_{elec} = \Theta_{mech}$      | d $\Theta_{elec} = (P/2)\Theta_{mech}$ |

**Ans 20. (d)**

Sl. No. 21 In a p-type silicon sample, the hole concentration is  $2.25 \times 10^{15}$  cc. If the intrinsic carrier concentration is  $1.5 \times 10^{10}$ /cc, what is the electron concentration in the p-type silicon sample?

- a Zero
- b  $10^5$ /cc
- c  $10^{10}$ /cc
- d  $1.5 \times 10^5$ /cc

Ans 21. (b)

Sl. No. 22 The depletion region or space charge region or transition region in a semiconductor P-N junction diode has

- a electrons and holes.
- b positive ions and electrons.
- c positive ions and negative ions.
- d no ions, electrons or holes.

Ans 22. (c)

Sl. No. 23 An SCR is considered to be a semi-controlled device because

- a It can be turned OFF but not ON with a gate pulse
- b It conducts only during one half-cycle of an alternating current wave
- c It can be turned ON but not OFF with a gate pulse
- d It can be turned ON only during one half-cycle of an alternating voltage wave

Ans 23. (c)

Sl. No. 24 The full forms of the abbreviations TTL and CMOS in reference to logic families are

- a Triple Transistor Logic and Chip Metal Oxide Semiconductor.
- b Tristate Transistor Logic and Chip Metal Oxide Semiconductor.
- c Transistor Transistor Logic and Complementary Metal Oxide Semiconductor.
- d Tristate Transistor Logic and Complementary Metal Oxide Silicon.

Ans 24. (c)

Sl. No. 25 A low-pass filter with a cut-off frequency of 30 Hz is cascade with a high-pass filter with a cut-off frequency of 20 Hz. The resultant system of filters will function as

- a a band-pass filter
- b an all-stop filter.
- c a band stop (band-reject) filter.
- d an all-pass filter.

Ans 25. (a)

**Sl.No. 26** Which material is used in mechanical structural work?

- a Aluminum
- b Mild steel
- c Forge steel
- d Cast steel

Ans 26. (b)

**Sl.No. 27** Which one is ductile material?

- a Cast iron
- b Glass
- c Mild steel
- d Cast steel

Ans 27. (c)

**Sl.No. 28** A tensile test is performed on round bar. After fracture, it has been found that the diameter remains approximately same at fracture. The material under test was

- a Mild steel
- b Cast iron
- c Copper
- d Aluminium

Ans 28. (b)

**Sl.No. 29** Maximum energy that a given component can absorb without undergoing any permanent deformation upto elastic limit is known as :

- a Proof Resilience
- b Resilience
- c Hardness
- d Toughness

Ans 29. (a)

**Sl.No. 30** Reynolds Number is the ratio of Inertial force to –

- a Surface tension
- b Gravitation force
- c Viscous force
- d None of the above

Ans 30. (c)

**Sl.No. 31** Bernoulli's equation is applied to

- a Venturimeter
- b Orifice meter
- c Pitot tube meter
- d All of the above

Ans 31. (d)

**Sl.No. 32** Which instrument is used to measure internal diameter of a pipe

- a Ruler
- b Thread gauge
- c Filler gauge
- d Vernier

Ans 32. (d)

**Sl.No. 33** Which workshop machine is used for making plane surface of any metal object

- a Drilling machine
- b Milling machine
- c Shaper machine
- d Boring machine

Ans 33. (c)

**Sl.No. 34** In which Thermodynamic process is there no flow of heat between the system and the surroundings?

- a Isobaric
- b Isochoric
- c Adiabatic
- d Isothermal

Ans 34. (c)

**Sl.No. 35** Which of the following energy conversion devices convert heat into work

- a Electric generators
- b I. C. Engines
- c Condensers
- d All of the above

Ans 35. (b)

**Sl.No. 36** The heat given to an ideal gas in isothermal conditions is used to :

- a Increase temperature
- b Do external work
- c Increase temperature and in doing external work
- d Increase internal energy

Ans 36. (b)

**Sl.No. 37** The function of a flywheel is :

- a To convert reciprocating motion of the piston into rotary motion
- b To convert rotary motion of the crankshaft into to and fro motion of the valve rod
- c To prevent fluctuation of speed
- d To keep the engine speed uniform at all load conditions

Ans 37. (c)

**Sl.No. 38** What is the function of Gear Box in a vehicle

- a To increase speed
- b To reduce speed
- c To multiply torque
- d To reduce vibration

Ans 38. (c)

**Sl.No. 39** Which one of the following is the heaviest metal

- a Iron
- b Gold
- c Mercury
- d Silver

Ans 39. (c)

**Sl.No. 40** Which gears are used to connect two intersecting shaft axes

- a Cross helical gear
- b Worm and worm wheel
- c Bevel gears
- d All of the above

Ans 40. (c)

**Sl.No. 41** Identify lower pairs. Select the most appropriate answer

- a Bull and socket
- b Can and follower
- c Piston and cylinder
- d Both a) and b)

Ans 32. (c)

**Sl.No. 42** Which one is a primer paint for Mild steel structure

- a** Coal tar
- b** Red oxide
- c** Aluminum synthetic enamel
- d** Glass flex paint

Ans 42. (b)

**Sl.No. 43** As the temperature increases, the thermal conductivity of a gas

- a** Increases
- b** Decreases
- c** Remains constant
- d** Increases up to a certain temperature and then decreases

Ans 43. (a)

**Sl.No. 44** Which brake is generally used in the front wheel of a vehicle

- a** Band rake
- b** Disc brake
- c** Drum brake
- d** Electdric brake

Ans 44. (b)

**Sl.No. 45** In roller bearing which type of rolling elements are used

- a** Cylindrical rollers
- b** Taper rollers
- c** Spherical rollers
- d** All of the above

Ans 45. (d)

**Sl.No. 46** Which of the following forms of thread can transmit power in only one direction?

- a** Acme threads
- b** Trapezoidal threads
- c** Square threads
- d** Buttrass threads

Ans 46. (d)

**Sl.No. 47** An wire rope passes through the following

- a** Bearing
- b** Pulley
- c** Gear box
- d** Nuts & Bolts

Ans 47. (b)

**Sl.No. 48** In four stroke cycle engine, cycle is completed in

- a** Two strokes of the piston
- b** Two revolutions of the crankshaft
- c** Three strokes of the piston
- d** Four revolutions of the crankshaft

Ans 48. (b)

**Sl.No. 49** Gear is manufacture in

- a** Hobbing machine
- b** Shaping machine
- c** Milling machine
- d** Drilling machine

Ans 49. (a)

**Sl.No. 50** The runaway speed of a hydraulic tubine is the speed?

- a** At full load
- b** At which there will be no damage to the runner
- c** Corresponding to maximum overload permissible
- d** At which the turbine will run freely without load

Ans 50. (d)

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**RECRUITMENT OF ASSISTANT MANAGER (FINANCE)**

**SUBJECT PAPER**

**MODEL QUESTIONS**

**Syllabus & Level of Difficulty: CA Final**

**[10 questions from each paper]**

**Subjects to be covered**

- 1. Financial Reporting (Including Indian Accounting Standards)**
- 2. Advanced Financial Management**
- 3. Direct Tax Laws**
- 4. Indirect Tax Laws**
- 5. Advance Auditing, Assurance and Professional Ethics**

## **MODEL QUESTIONS [MCQ]**

### **Indirect Tax Laws**

**Each question will carry 02 marks each**

#### **Question - 1**

The adjudicating authority determined Rs. 50 lakh as tax, interest and penalty to be payable by Mr. X on account of wrong availment of input tax credit. Mr. X wants to prefer an appeal before the first Appellate Authority against such orders. Out of Rs. 50 lakh, Mr. X admitted Rs. 15 lakh as his liability and wants to litigate for Rs. 35 lakh. Calculate the amount of pre-deposit to be paid by Mr. X.

a) Rs. 18,50,000/- b) Rs. 22,00,000/- c) Rs. 50,00,000/- d) Rs. 15,00,000/-

**Ans- (a)**

#### **Question - 2**

M/s ABC Ltd is filing his GSTR-3B for the month of August 2018. His total credit balance of inputs and total tax liability payable is given in the table below. He needs your guidance to understand the utilization of credit. Guide him with the rules towards credit utilization of IGST, CGST, SGST and cash payable towards tax liability.

<b>Tax</b>	<b>Total Balance</b>	<b>Credit</b>	<b>Total Tax Payable</b>	<b>Liability</b>
<b>IGST</b>	80000		90000	
<b>CGST</b>	87000		85000	
<b>SGST</b>	75000		77000	
<b>TOTAL</b>	242000		252000	

- a. IGST payable – 10,000, CGST Payable – 0, SGST payable – 2,000
- b. IGST payable – 8,000, CGST Payable – 0, SGST payable – 2,000
- c. IGST payable – 0, CGST Payable – 2000, SGST payable – 2,000
- d. IGST payable – 10,000, CGST Payable – 1,000, SGST payable – 1,000

**Ans- (b)**



**Question - 3**

M/s. Kuber Anand is registered under GST. He has output tax liability as under-

CGST: Rs. 85,00,000

SGST: Rs. 85,00,000

IGST: Rs. 1,05,00,000

It has input tax credits as under- CGST: Rs. 1,50,00,000 including credit of Rs. 75,00,000 carried forward from TRAN-1

SGST: Rs. 30,00,000

IGST: Rs. 1,20,00,000

Calculate the amount of tax to be deposited in cash?

- a. CGST: Nil; SGST: Rs. 55,00,000; IGST: Nil
- b. CGST: Rs. 10,00,000; SGST: Rs. 55,00,000; IGST: Nil
- c. CGST: Nil; SGST: Rs. 50,00,000; IGST: Nil
- d. CGST: Nil; SGST: Rs. 40,00,000; IGST: Nil

**Ans- (d)**

**Question - 4**

Mr. Noah is registered under GST in the State of Maharashtra. He sells footwear to his customers locally within the same State. He has been appointed as an agent by Lucas Ltd., a company registered under GST in the State of Karnataka. During a financial year, Lucas Ltd., sends taxable goods worth 5.00 crore from its Bengaluru store to Mr. Noah who sells such goods for 5.00 crore by raising invoices using the GSTIN of Lucas Ltd. Mr. Noah receives a commission of ₹60.00 lakh from Lucas (P) Ltd., during the said financial year.

Compute the value of supply of Lucas (P) Ltd. and Mr. Noah for the financial year assuming that amounts given above are exclusive of GST, wherever applicable.

- (A) Lucas (P) Ltd.: Nil and Noah: 5.6 crore
- (B) Lucas (P) Ltd.: 5 crore and Noah: 5.6 crore
- (C) Lucas (P) Ltd.: 5 crore and Noah: 60 lakh
- (D) Lucas (P) Ltd.: 5.6 crore and Noah: Nil

**Ans- (C)**

**Question - 5**

Mr. Vikram, a registered person under GST, was the proprietor of M/s Tikhi Meethi Restaurant. He died and left behind his wife and son, on 15th August. His son, Mr. Venkat wants to continue the business of the deceased father.

The GST consultant of M/s Tikhi Meethi Restaurant gives advice to Mr. Venkat as to how he can continue the business of his deceased father.

Which of the following options is correct in accordance with the provisions of GST law?

- (A) Mr. Venkat should apply for a new registration under GST in the name M/s Tikhi. Meethi Restaurant under his own PAN w.e.f. the date of succession and file Form GST ITC 02 for transfer of ITC to the new entity.
- (B) Mr. Venkat can get the authorized signatory changed by approaching to the Proper Officer and can continue the same business.
- (C) Mr. Venkat should close the old firm and start new business under different name.
- (D) Mr. Venkat should do the business with his mother as the new proprietor of the M/s Tikhi Meethi Restaurant, and Mr. Venkat should act as a Manager.

**Ans- (A)**

**CASE STUDY:-** Mr. Bindusaar, a practicing Chartered Accountant, based in Hyderabad, is registered under GST in the State of Telangana.

He undertook following transactions/activities during the current financial year:

(1) He provided consultancy services to Edward Tours, a UK based entity engaged in the business of e-commerce in the field of tour and travels, having its office at UK. Edward Tours paid a sum of Euro 95,000 to Mr. Bindusaar billed @ 75 per Euro. Mr. Bindusaar made travel to UK several times during the year and incurred Euro 5,000 @75 as incidental expenses (including VAT paid 10,000) which was ultimately charged from Edward Tours. Edward Tours also paid a sum of EURO 5,000 @ 75 to Mr. Bindusaar as interest on account of delay in payment of agreed consideration.

Mr. Bindusaar also hired the services of a professional firm based in UK to complete the assignment of providing services to Edward Tours and paid Euro 10,000 @75. This was not recovered from Edward Tours.

(2) Mr. Bindusaar's taxable earnings for services provided in India for the financial year are 85,00,000. In addition to this, Mr. Bindusaar also provided return filing services free of charge in the month of July to Indian residents who were economically weaker. Open market value of such services was 1,40,000.

Further, in July, Mr. Bindusaar also provided financial services to his real brother Mr. Shiv who is working at an IT company and earning handsomely, for 75,000 (invoice value). However, Mr. Bindusaar offered him 90% discount on the invoice raised to him. Therefore, Mr. Shiv paid 7,500 only.

Notes: The rates of tax are 9% (CGST), 9% (SGST) and 18% (IGST) on all inward/ outward supplies. All the amounts given above are exclusive of taxes, wherever applicable

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos (6) to (8) below, carrying 2 marks each:-

**Question - 6**

Compute the value of supply made by Mr. Bindusaar to Edward Tour in Euros

- (A) ₹120,000
- (B) ₹105,000
- (C) ₹115,000
- (D) ₹125,000

**Ans- (B)**

**Question - 7**

Compute aggregate turnover of Mr. Bindusaar for the current financial year.

- (A) ₹1,78,75,000
- (B) ₹1,86,25,000
- (C) ₹1,63,82,500
- (D) ₹1,80,90,000

**Ans-(C )**

**Question - 8**

What is value of supply made by Mr. Bindusaar to Mr. Shiv if Mr. Shiv is the son of Mr. Bindusaar and not his brother and supply is made free of cost, other facts remaining the same?

- (A) ₹7,500
- (B) ₹75,000
- (C) Not a supply since they are related
- (D) Value cannot be determined

**Ans- (B)**

## **Advance Auditing, Assurance and Professional Ethics**

### **Question – 1-5**

**Each question will carry 02 marks each**

1. Well & Associates, an audit firm, was selected for the purpose of Quality Review by the Quality Review Board (QRB) as it was having many of statutory audit assignments of clients engaged into sectors identified as prone to fraud.

There were adverse findings by the Technical Reviewer in the Quality review conducted in the past of Mr. Ramesh an engagement partner of Well & Associates because of which the QRB selected 5 audit engagements of the firm for Quality review.

Mr. Jay, a practicing CA for more than 25 years was appointed as the Technical Reviewer to conduct the Quality Review of the said firm and accordingly, Mr. Jay, after conducting the Quality review with a team of 3 assistants, submitted his preliminary report to Well & Associates with qualifications as under:

Sr. No.	Description of Qualifications
1	The AFUR (Audit Firm Under Review) had not obtained a written confirmation of compliance with its policies and procedures on independence from all firm personnel for the past 2 financial years.
2	The AFUR had established the policies and procedures for assembling of the final audit file in accordance with the time limit prescribed in SA 230 but there were delays observed in the same. (Please Refer Note, as below, for the same)
3	For two of the audit engagements of the AFUR, no engagement documentations were available for the same and as per the statement of the partner of the AFUR, after retaining them for 4 years and 6 years, respectively, were sent to the Principal Auditors of the said audit engagements.
4	There were also instances of delays observed in communicating the significant deficiencies to those charged with governance. (Please Refer Note, as below, for the same)
5	The AFUR had revised its performance materiality level in case of one of its statutory audit assignments with respect to auditing of Financial Leasing transactions and the AFUR had only documented such revision in the performance materiality level.

**Note:**

Name of the entity under audit of AFUR	Type of Entity	Date of Approval Financial Statement s	Date of Audit Report	Date of assembly - of Final Audit File	Date of written communication of significant deficiencies in internal control by AFUR
Req Ltd.	Listed	31.05.2021	25.06.2021	03.09.2021	05.06.2021
TIMCO (P) Ltd.	Unlisted	15.06.2021	18.08.2021	05.11.2021	25.08.2021
Gles Pvt. Ltd.	Unlisted	16.07.2021	28.07.2021	15.09.2021	18.09.2021
Findey Ltd.	Listed	12.05.2021	01.06.2021	01.08.2021	05.05.2021
DM Ltd.	Unlisted	25.04.2021	18.05.2021	25.06.2021	04.07.2021

On the basis of the abovementioned facts, you are required to answer the following MCQs:

- I. Well & Associates should have obtained a written confirmation of compliance with its policies and procedures on independence from all of its firm personnel as per requirements of which Statute / Standard and in what frequency?
  - (a) As per the requirements of Council Central Guidelines, 2008, at least annually, Well & Associates should have obtained a written confirmation from all of its firm personnel.
  - (b) As per the requirements of Standard on Quality Control 1 at least annually, Well & Associates should have obtained a written confirmation from all of its firm personnel.
  - (c) As per the requirements of SA 220 at least annually, Well & Associates should have obtained a written confirmation from all of its firm personnel.
  - (d) As per the requirements of Code of Ethics at least half yearly, Well & Associates should have obtained a written confirmation from all of its firm personnel.

**Ans- (b)**

- II. In case of which entities under audit of Well & Associates, there was delay in assembly

of Final Audit File?

- (a) Req Ltd., TIMCO (P) Ltd., Gles Pvt. Ltd. and Findey Ltd., respectively.
- (b) Req Ltd., TIMCO (P) Ltd. and Findey Ltd., respectively.
- (c) Req Ltd. and TIMCO (P) Ltd., respectively.
- (d) Req Ltd., TIMCO (P) Ltd., Gles Pvt. Ltd., Findey Ltd. and DM Ltd., respectively.

**Ans- (b)**

**III.** In case of which entities under audit of Well & Associates, there was delay in written communication of significant deficiencies in internal control?

- (a) TIMCO (P) Ltd., Gles Pvt. Ltd. and DM Ltd., respectively.
- (b) Req Ltd., TIMCO (P) Ltd., Gles Pvt. Ltd. and DM Ltd., respectively.
- (c) DM Ltd.
- (d) Req Ltd., Gles Pvt. Ltd. and DM Ltd., respectively.

**Ans- (d)**

**IV.** For at least how many more years, Well & Associates should have retained the engagement documentation in respect of the two audit engagements as referred above?

- (a) 3 years and 1 year, respectively.
- (b) 4 years and 2 years, respectively.
- (c) 1 year and for other audit engagement documentation was retained for requisite period.
- (d) 6 years and 4 years, respectively.

**Ans- (a)**

**V.** How many audit engagements of Well & Associates the QRB might have selected if there were no adverse findings by the Technical Reviewer in the Quality review conducted in the past of Mr. Ramesh, partner of Well & Associates?

- (a) QRB might have selected up to 3 audit engagements of Well & Associates for review and not more than 2 audit engagements of Mr. Ramesh.
- (b) QRB might have selected up to 5 audit engagements of Well & Associates for review and not more than 1 audit engagement of Mr. Ramesh
- (c) QRB might have selected up to 5 audit engagements of Well & Associates for review and not more than 2 audit engagements of Mr. Ramesh
- (d) QRB might have selected up to 3 audit engagements of Well & Associates for review and not more than 1 audit engagement of Mr. Ramesh.

**Ans- (c)**

### **Question – 6**

M/s Ram Raj & Associates have been appointed as statutory auditors of Venus Ltd. for the FY 2023-24. During the year, the company has entered into some related party transactions. CA Ram, the engagement partner has taken a management representation letter regarding the proper accounting, presentation and disclosure of such related party transactions. Is there any further responsibility of CA Ram with respect to the other procedures to be performed for related party transactions?

- (A) No, there is no further responsibility of CA Ram as the best audit evidence for the related party transaction is the management representation letter.
- (B) No, there is no further responsibility of CA Ram as the audit firm is responsible for verifying the balances and disclosure of related party transactions. The identification of related party transactions is the responsibility of the management of Venus Ltd.
- (C) Yes, the audit firm has the responsibility to perform the audit procedures to identify, assess and respond to the risk of material misstatement arising from the entity's failure to appropriately account for related party relationships, transactions and balances.
- (D) Yes, the auditor has the responsibility to detect fraud and error with respect to the related party transactions.

**Ans- ( C )**

### **Advanced Financial Management:**

**Each question will carry 02 marks each**

#### **Question – 1**

The following information is related to two bonds same in other respects:

Price of Bond A = Rs. 101

Price of Bond B = Rs. 120

Coupon Rate of Bond A =14%

Coupon Rate of Bond B = 15%

If both the bonds are redeemable at a Premium of 10% after 2 years and the required yield on this category of Bonds is 16% then best avenue for investment shall be.....

- (A) Bond A
- (B) Bond B
- (C) Any of the two Bonds
- (D) Neither of the two Bonds

**Ans- (A)**

**Question – 2**

A short forward contract on share of A Ltd. that was negotiated some time ago will expire in 3 months and has a delivery price of Rs. 4,000. The current forward price for three-month forward contract is Rs. 4,200 and the 3-month risk-free interest rate (with monthly compounding) is 6%. The value of the same short forward contract will be.

- (A) Rs. 200
- (B) -Rs. 200
- (C) Rs. 197.03
- (D) -Rs. 197.03

**Ans-( D)**

**Question – 3**

If USD/INR spot is trading at 83.2000 and one year Swap annualized premium is trading at 6.8% then what would be the net outright rate

- (A) 77.4500
- (B) 77.5524
- (C) 88.4500
- (D) 88.8576

**Question – 4**

X Ltd. made a net profit of Rs. 50,00,000 and incurred expenses of Rs. 15,00,000. The number of issued Equity shares is 10,00,000. The company has a debt of Rs. 5,00,000. The market related details are as follows:  $R_f = 10\%$  Market Rate of Return = 15% Beta = 1.2.

The per share Earning Value of the company shall be...

- (A) Rs. 31.25
- (B) Rs. 21.88
- (C) Rs. 312.50
- (D) Rs. 218.75

**Ans-( D)**

**Question – 5**

The value a zero coupon with a maturity of three years and a maturity value of Rs 1,000 discounted at 7% is



- (A) Rs. 816.30
- (B) Rs. 901.94
- (C) Rs. 966.18
- (D) Rs. 1000

**Ans- ( A )**

**Question – 6**

In which of the following Capital Budgeting method, cash flows are reinvested at the cost of capital?

- (A) Internal Rate of Return
- (B) Net Present Value
- (C) Accounting Rate of Return
- (D) Payback period

**Ans- (B)**

**Financial Reporting (Including Indian Accounting Standards)**

**Question - 1**

During the financial year 20X1-20X2, ABC Limited have paid various taxes reproduced the below mentioned records for your perusal:

- Capital gain tax of Rs. 2 crore on sale of office premises at a sale consideration of Rs. 100 crore.
- Income Tax of Rs. 3 crore on Business profits amounting Rs. 30 crore (assume entire business profit as cash profit).
- Dividend Distribution Tax of Rs. 1 crore on payment of dividend amounting Rs. 10 crore to its shareholders.
- Income tax Refund of Rs. 2 crore (Refund on taxes paid in earlier periods for business profits)

Calculate cashflow from investing activities.

- A : Rs. 29 crores
- B : Rs. 32 crores
- C : Rs. 98 crores
- D : ( Rs. 11 crore)

**Ans- (C)**

**Question - 2**

A company issues 10,000 6% convertible debentures having face value of ₹10 , each convertible into 10 equity shares. Interest expense for the year is ₹600,000, tax rate is 30%, and net profit for the year is ₹2,000,000. If the company has 100,000 shares outstanding in total , what is its diluted EPS?

- A : ₹17.54
- B : ₹18.42
- C : ₹19.30
- D : ₹20.00

**Ans- (B)**

**Question - 3**

On January 1, year 1, an entity acquires for Rs. 100,000 a new piece of machinery with an estimated useful life of 10 years. The machine has a drum that must be replaced every five years and costs Rs. 20,000 to replace. Continued operation of the machine requires an inspection every four years after purchase; the inspection cost is Rs. 8,000. The company uses the straight-line method of depreciation. What is the depreciation expense for year 1?

- A : Rs. 10,000
- B : Rs. 10,800
- C : Rs. 12,000
- D : Rs. 13,200

**Ans- (D)**

**Question - 4**

A Ltd. controls another entity B Ltd., owning 60% of its ordinary share capital. At the group's year end, 31st December 20X1, B Ltd. included Rs. 6,000 in its receivables in respect of goods supplied to A Ltd. However, the payables of A Ltd. included only Rs. 4,000 in respect of amounts due to B Ltd. The difference arose because, on 31st December 20X1, A Ltd. sent a cheque of Rs. 2,000, which was not received by B Ltd. until 3rd January 20X2.

Which one of the following sets of consolidation adjustments to current assets and current liabilities is correct?

- A : Deduct Rs. 6,000 from both consolidated receivables and consolidated payables
- B : Deduct Rs. 3,600 from both consolidated receivables and consolidated payables
- C : Deduct Rs. 6,000 from consolidated receivables and Rs. 4,000 from consolidated payables and include Rs. 2,000 as cash-in- transit
- D : Deduct Rs. 6,000 from consolidated receivables and Rs. 4,000 from consolidated payables and include inventory in transit of Rs. 2,000

**Ans- (C )**

**Question - 5**

As per SA 550 on Related Parties, existence of which relationship indicate the presence of control or significant influence?

- (A) Friend of a family member of a person who has the authority and responsibility for planning.
- (B) Holding debentures in the entity.
- (C) The entity's holding of debentures in other entities.
- (D) The entity's holding of equity in other entities.

**Ans- (D)**

**Question -6**

At the end of an accounting period, the cost of a company's inventory is Rs. 4,50,000. This includes damaged items with a cost of Rs. 25,000 which are expected to be sold for only Rs. 10,000 (less selling expenses of 5%). All other items of inventory have a net realisable value which exceeds cost. As per IND AS 2, the amount at which the company's inventory should be recognized at the end of the period is:

- (A) ₹4,25,000
- (B) ₹4,50,000
- (C) ₹4,34,500
- (D) ₹4,35,000

**Ans- (C )**

**Direct Tax Laws**

**Each question will carry 02 marks each**

**Question - 1**

Y is a foreign company having permanent establishment in India namely X. Z, a non-resident associated enterprise, has invested 900 crore through debt in X. Earnings before interest, taxes, depreciation and amortisation (EBITDA) of X during the financial year was 150 crore. What is the amount of interest allowable in respect of the debt assuming that the debt was invested on the first day of the financial year and the rate of interest is 10% p.a.?

- (a) 45 crore
- (b) 90 crore
- (c) 30 crore
- (d) 27 crore

**Ans- (a)**

**Question - 2**

ABC Ltd. took on sub-lease a building from Ms. Jhanvi with effect from 1.7.2023 on a rent of 20,000 per month. It also took on hire machinery from Ms. Jhanvi with effect from 1.10.2023 on hire charges of 15,000 per month. ABC Ltd. entered into two separate agreements with Ms. Jhanvi for sub-lease of building and hiring of machinery. Which of the following statements is correct with reference to ABC Ltd.'s liability to deduct tax at source, assuming that one month's rent was received as security deposit, which is refundable at the end of the lease period?

- (a) No tax needs to be deducted at source since rent for building does not exceed 2,40,000 p.a. and rent for machinery also does not exceed 2,40,000 p.a. Security deposit refundable at the end of the lease term is not rent for the purpose of TDS
- (b) Tax has to be deducted @10% on ₹ 2,00,000 and @2% on ₹ 1,05,000 (i.e., rent including security deposit)
- (c) Tax has to be deducted @10% on 1,80,000 and @2% on 90,000 (i.e., rent excluding security deposit)
- (d) Tax has to be deducted @10% on ₹ 2,00,000 (i.e., rent including security deposit). However, no tax is to be deducted on rent of 1,05,000 (i.e., rent including security deposit) for machinery, since the same does not exceed 1,80,000

**Ans- ( c )**

**Question - 3**

In the P.Y.2023-24, Mr. Ganguly, a resident individual aged 60 years, earned income from profession (computed) 1,45,000, winnings from card games 1,50,000 (gross). He also has interest of 40,000 on fixed deposit with banks and 9,000 on savings account with bank. He deposited 1,50,000 in PPF. What is the total income of Mr. Ganguly for P.Y.2023-24, assuming that he exercises the option to shift out of the default tax regime under section 115BAC?

- (a) 1,45,000
- (b) ₹1,50,000
- (c) 1,85,000
- (d) 1,90,000

**Ans- (b )**

**Question - 4**

A notified infrastructure debt fund eligible for exemption under section 10(47) of the Income-tax Act, 1961 has to pay interest of 5 lakhs to a company incorporated in a foreign country. The foreign company incurred expenditure of 12,000 for earning such interest. The fund also has to pay interest of 3 lakhs to

Mr. Frank, who is a resident of Country A, a notified jurisdictional area. Which of the following statements is correct?

- (A) No tax deduction at source is required in respect of both the payments
- (B) No TDS is required in respect of 5 lakhs payable to the foreign company. However, payment of interest to Frank attracts TDS @31.2%
- (C) TDS@5.20% is attracted on 4,88,000 payable to the foreign company. TDS@31.2% is attracted on interest payment of 3 lakhs to Mr. Frank
- (D) TDS@5.20% is attracted on interest of 5 lakhs payable to the foreign company. TDS@31.2% is attracted on interest of 3 lakhs payable to Mr. Frank

**Ans- (D)**

**Question - 5**

Mr. Arvind, engaged in the business of wholesale trade, has a turnover of 90 lakhs for P.Y.2022-23 and 210 lakhs for P.Y.2023-24. In the P.Y.2023-24, he paid salary of 3 lakhs to Mr. Hari, a resident, without deduction of tax at source and commission of 51 lakhs to Mr. Rajesh, a resident, without deduction of tax at source. The disallowance under section 40(a) (ia) while computing business income of A.Y.2024-25 would

be-

- (A) ₹54,00,000
- (B) ₹16,20,000
- (C) ₹15,30,000
- (D) Nil

**Ans- (C)**

**MODEL QUESTION FOR SELECTION**

**DIRECT RECRUITMENT OF ASSTT. MANAGER (FINANCE), HDC**

**Level of Difficulty: Easy to Moderate**

**Test of Reasoning**

1. Ramesh was born 5 years after Somu. Somu is 3 years older than Kapil and 7 years younger than Akhil. If Ramesh is 10 years old now, then how old is Akhil?

- a) 22
- b) 25
- c) 15
- d) 12

**Answer: (a)**

2. If  $p + q > r + s$ , and  $q + r > p + s$ , then which of the following is true?

- a)  $q > r$
- b)  $q > s$
- c)  $r > s$
- d)  $p > s$

**Answer: (b)**

3. Six sweet boxes are placed on a table. C is under F and E is on D. F is under B and A is above E. D is on B. Which is the box that is lying on the top?

- a) E
- b) C
- c) B
- d) A

**Answer: (d)**

4. In a class, 80% of students passed the English exam and 70% of students passed the Science exam. If 65% of students passed both the English and Science exams, then find out the percent of the students in the class who didn't pass either English or Science exams.

- a) 15%
- b) 20%
- c) 25%
- d) 10%

**Answer: (a)**

5. Ram walks 15 km towards the north, and then he turns east and walks 35 km. He then turns to his right and walks 10 km. He again turns to his right and walks 35 km. In which direction is he from his starting point and how far is he from it?

- a) 5 km, East
- b) 5 km, South
- c) 5 km, North
- d) 5 km, West

**Answer: (c)**

6. In a certain code, 'SUN' is written as '@70', 'NOSE' is written as '09@4', and 'OUT' is written as '97%'. How is 'TEEN' written in that code?

- a) %440
- b) %4@0
- c) %770
- d) %970

**Answer: (a)**

7. Rs 850 is distributed among three people, P, Q, and R, in such a way that P gets Rs 150 less than R, and Q gets Rs 100 more than R. What is the ratio of their shares?

- a) 6 : 8 : 3
- b) 8 : 6 : 3
- c) 4 : 2 : 3
- d) 3 : 8 : 6

**Answer: (d)**

8. The film director wants an actress for the lead role of Lucy who perfectly fits the description that appears in the original screenplay. He is not willing to consider actresses who do not resemble

the character as she is described in the screenplay, no matter how talented they are. The screenplay describes Lucy as an average-sized, forty something redhead, with deep brown eyes, very fair skin, and a brilliant smile. The casting agent has four actresses in mind.

**Actress #1** is a stunning red-haired beauty who is 5'9" and in her mid-twenties. Her eyes are brown and she has an olive complexion.

**Actress #2** has red hair, big brown eyes, and a fair complexion. She is in her mid-forties and is 5'5".

**Actress #3** is 5'4" and of medium build. She has red hair, brown eyes, and is in her early forties.

**Actress #4** is a blue-eyed redhead in her early thirties. She's of very slight build and stands at 5'.

- a) 1, 2
- b) 2, 3
- c) 1, 4
- d) 2, 4

**Answer: (b)**

9. Mrs. Carson took a taxi to meet her three friends for lunch. They were waiting for her outside the restaurant when she pulled up in the car. She was so excited to see her friends that she left her tote bag in the taxi. As the taxi pulled away, she and her friends took notice of the license plate number so they would be able to identify the car when they called the taxi company.

**#1:** The four women seem to agree that the plate starts out with the letter J.

**#2:** Three of them agree that the plate ends with 12L.

**#3:** Three of them think that the second letter is X, and a different three think that the third letter is K.

The four license plate numbers below represent what each of the four women thinks she saw. Which one is most likely the license plate number of the taxi?

- a) JXK 12L
- b) JYK 12L
- c) JXK 12I
- d) JXX 12L

**Answer: (a)**



10. **Statement:** The minimum qualification for this job is a degree in any discipline from a University. However, the candidates who have appeared for the final year of graduate degree can also apply.

**Conclusion I:** All candidates who have not graduated as yet will be there in the list of selected candidates.

**Conclusion II:** The name of all candidates having graduation as their minimum qualification will be in the list of selected candidates.

**Options:**

a. Only I follows ☐

c. Both I and II follows ☐

b. Only II follows ☐

d. Neither I nor II follows ☐

**Answer: (d)**

11. The population of rats is increasing year after year in a village. Find out the missing population of 1993 from the following information.

Year	1990	1991	1992	1993	1994	1995
Population	4	8	16	?	44	64

**Options:**

a. 22 ☐

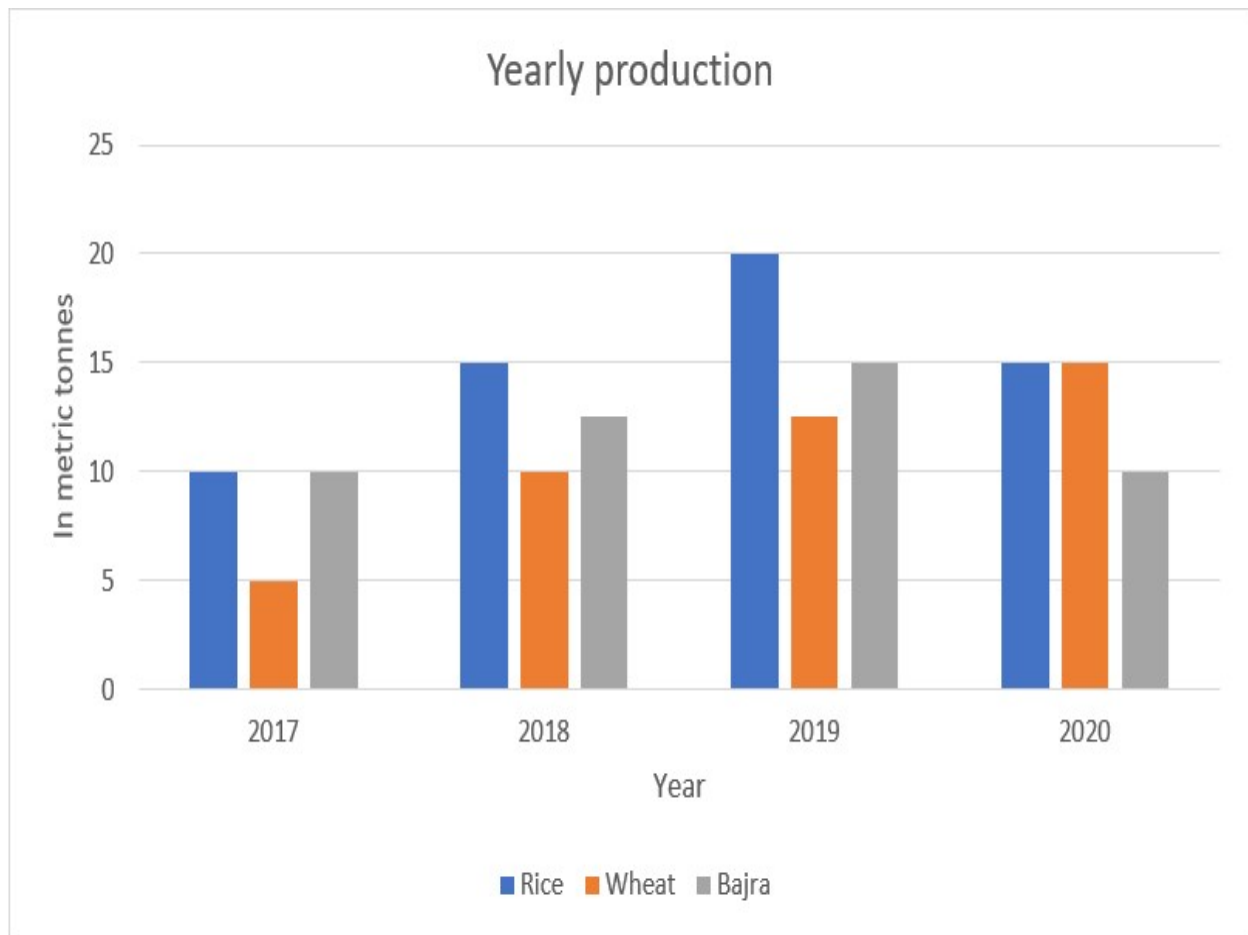
c. 28 ☐

b. 32 ☐

d. 34 ☐

**Answer: (c)**

12. Production of wheat in 2019 and 2020 is what percentage of its production in 2018 and 2017?



- a) 200%
- b) 183.33%
- c) 150%
- d) 133.33%

**Answer: (b)**

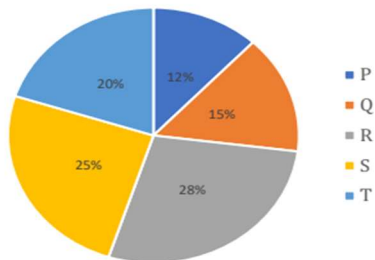
### Quantitative Aptitude

1. Mr. Ajay Dube invested a certain sum at simple interest for 4 years such that  $\frac{3}{7}$  of the sum was invested at 7% per annum,  $\frac{2}{5}$  of the sum at 9% per annum and the remaining at 11% per annum. If the total interest received is RS. 11880, the total sum invested is  
(a) **35000**  
(b) 38000  
(c) 32000  
(d) 30000s
2. A dishonest shopkeeper claims that he is selling mustard oil at Rs. 160/kg which cost him Rs. 120/kg but he gives 900 ml instead of 1 liter. What is his profit percentage?  
(a) **48.14%**  
(b) 57.12%  
(c) 57.18%  
(d) 42.28%
3. A cone of radius 90 cm and height 120 cm stands on its base. It is cut into 3 parts by 2 cuts parallel to its base such that the height of the three parts (from top to bottom) are in ratio of 1:23. What is the total surface area (in  $\text{cm}^2$ ) of the middle part?  
(a) 14600  
(b) **16500**  
(c) 17800  
(d) 18500
4. If a 6-digit number  $9xyz67$  is divisible by 7, 11 and 13, then what is the average of x,y and z?  
a)  $7\frac{2}{3}$   
(b)  **$7\frac{1}{3}$**   
(c)  $6\frac{2}{3}$   
(d)  $6\frac{1}{3}$
5. If x beakers of 100 ml containing 1:4 acid-water solution are mixed with y beakers of 200 ml containing 3: 17 acid-water solution then the ratio of acid to water in the resulting mixture becomes 19:91. Find x : y.  
(a) **5:3**  
(b) 3:5  
(c) 7:13  
(d) 13:7

6. Two persons P and Q together can complete another work 'Y' in  $(x+12)$  days, while Q and R together can complete the same work in  $(y - 2)$  days. If P, Q and R together can complete the work 'Y' in  $6x/(y-7)$  days, then find efficiency of 'Q' is what percent more or less than efficiency of 'P'.
- (a) 80%  
(b) 120%  
**(c) 100%**  
(d) 150%
7. ABCD is a cyclic quadrilateral in which BD cuts AC at point O such that  $AO:CO = 2:1$ . If  $AB=14.3$  cm,  $BC= 13$  cm and  $CD= 18.7$  cm. Find the value of AD.
- (a) 17 cm  
**(b) 34 cm**  
(c) 51 cm  
(d) 42.5 cm
8.  $Ja^3 + Kb^3 + Lc^3 - 36abc = (Xa + Yb + Zc)(4a^2 + 9b^2 + 4c^2 - 6ab - 6bc - 4ac)$ , then find  $(J + K + L)(X + Y + Z) = ?$
- (a) 298  
**(b) 301**  
(c) 307  
(d) 291
9. The cost of a diamond varies directly as the square of its weight. Once the diamond broke into four pieces with weight in the ratio of 4:3:2:1. When the piece was sold, the merchant got Rs. 63,000/- less than that of one piece. Find the original price of diamond.
- (a) Rs. 86,000/-  
(b) Rs. 80,000.5/-  
**(c) Rs. 90,000/-**  
(d) Rs. 75,000/-
10. Given pie chart shows percentage distribution of students who play 'Pubg' from five different colleges (P, Q, R, S & T) and table shows number of students who have Royal elite pass. Read the data carefully and answer the questions.
- Note- Student who play Pubg = Student who have royal elite pass + Student who do not have royal elite pass.

College	Students who have Royal elite pass
---------	------------------------------------


Total students play Pubg = 6000



If total boys who do not have Royal elite pass is  $66\frac{2}{3}\%$  more than total girls who do not have Royal elite pass from S, then find ratio of total boys who do not have Royal elite pass from S to total students who do not have Royal elite pass P & R together?

- (a) 25 : 64
- (b) 25 : 54**
- (c) 25 : 58
- (d) 25 : 52

## **General Awareness**

### **Syllabus:**

General awareness of Economy, Money Market, Banking, Stock exchange, Major Govt Policies.

Simple Static GK.

### **Level of Difficulty:** Easy to Moderate

1. **Which of the following statements represents the main function of the central bank in a country?**
  - a. It is responsible for the regulation over the supply of money in the market
  - b. It is responsible for the issuance of notes within the country
  - c. It acts as a banker both to the government and to other banks in the country
  - d. All of the above

**Answer: d**

2. What do you mean by Gross National Product?
  - a) The total value of goods and services produced in the country
  - b) The total value of all the transactions in the country
  - c) The depreciation in the total value of goods and services produced in the country
  - d) The total value of goods and services produced in the country and the net factor income from abroad

**Answer: d**

3. What is the full form of NREGA?
  - a. National Rural Employment Government Act
  - b. National Rural Education Guarantee Act
  - c. National Rural Employment Guarantee Act
  - d. National Rozgaar Employment Guarantee Act

**Answer: (c)**

4. Which of the following statements is true about the Indian monetary system?

- a. The Indian monetary system is based on the gold standard
- b. The Indian monetary system is based on the credit money standard
- c. The Indian monetary system is based on the paper standard
- d. The Indian monetary system is based on the metallic standard

**Answer: c**

5. Which of the following is an instrument of Money Market?

- a. Call Money
- b. Certificate of Deposit
- c. Trade Bills
- d. Commercial Paper

**Answer: a**

6. Which of the following books contains the national song of India?

- |              |                          |                 |                          |
|--------------|--------------------------|-----------------|--------------------------|
| a. Anadamath | <input type="checkbox"/> | b. Lipika       | <input type="checkbox"/> |
| c. Gitanjali | <input type="checkbox"/> | d. Chokher Bali | <input type="checkbox"/> |

**Answer: a**

7. Which of the following ports is the first port in India to be a public company?

- |           |                          |              |                          |
|-----------|--------------------------|--------------|--------------------------|
| a. Kandla | <input type="checkbox"/> | b. Mangalore | <input type="checkbox"/> |
| c. Ennore | <input type="checkbox"/> | d. Mormugaon | <input type="checkbox"/> |

**Answer: c**

8. "Freedom is my birth right and I shall have it". Who said these famous words?

a. Lala Rajpat Rai ☐

b. Bepin Chandra Pal ☐

c. Bal Gangadhar Tilak ☐

d. Subhash Chandra Bose ☐

**Answer: c**



## General English

1. In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that should interchange. If the sentence is correct as it is then, select option "No interchange required" as your choice.

The primitive **mirror (A)** society was built to **virtual (B)** the carefree state of **lived (C)** that people once **nature (D)** in.

(a) A-C & B-D

(b) B-C

**(c) A-B & C-D**

(d) A-D

(e) No interchange required

2. In each of the question given below, a statement has been given with a blank. Some words or phrases have been given in the options following the statement. Choose the most appropriate word or phrase that could fit in the statement to make it contextually meaningful and grammatically correct.

Because the critics called the play a \_\_\_\_\_ failure, few people purchased tickets for the stage production.

(a) jocund

(b) mirthful

**(c) dismal**

(d) blithe

3. Each question is divided into four parts where one of the parts may or may not contain an error. Choose the part that has the error as your answer.

Despite the team's efforts (A)/ to find flaws, they couldn't identify (B)/ no flaws in the project, (C)/ making it a remarkable success. (D)

(a) A

(b) B

**(c) C**

(d) D

4. Rearrange the following sentences in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

(A) Moreover, in today's world, the influence of social media extends far beyond personal connections, shaping public opinion and driving societal change.

(B) These platforms enable users to share their thoughts, photos, and experiences with a global audience.

(C) However, the impact of social media on mental health and privacy concerns are growing issues.

(D) Platforms like Facebook, Twitter, and Instagram have become integral parts of our daily lives.

(E) It's essential for users to be mindful of their online presence and digital footprint.

(F) Social media has revolutionized the way we connect and communicate in the digital age.

Rearrangement the sentences in proper order?

(a) ABDCFE

**(b) FDBACE**

(c) FDABCE

(d) FBADEC

5. Read the following passage and answer the given questions.

In the intricate tapestry of the Middle East's economic landscape, countries face enduring challenges, and Portugal's ministerial predicament sheds light on the shortcomings of past economic philosophies. Two ministers, Maria Silva and João Rodrigues, grapple with distinct and now seemingly inadequate approaches, reflecting a negative tone in the quest to revive the economy.

Maria Silva, advocating a meticulous, methodical approach, once celebrated for its practicality, finds her strategies faltering in the face of evolving challenges. Studying the highs and lows of the economy and addressing root causes was once considered a robust strategy.

On the opposing front, João Rodrigues champions an immediate solution – the infusion of cash and monetary resources into the economy. This Keynesian approach, effective in the past, now reveals its flaws in the contemporary economic landscape. Rapid cash injections, while providing a quick fix, risk contributing to inflation and fail to address the deep-seated, structural issues at the heart of the economic challenges.

These once-successful policies from the 1980s are now proving inadequate in the current scenario. The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and

interconnectedness characterizing today's global economy. Conversely, Rodrigues' cash infusion strategy, while providing short-term relief, lacks the foresight needed to address the intricate challenges that have evolved over time.

The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches. The difficulty in reviving the Middle East's economy serves as a cautionary tale, emphasizing the imperative for forward-thinking policies that can navigate the intricacies of the contemporary economic environment.

Why does Maria Silva's methodical approach face challenges in the contemporary economic landscape, according to the passage?

- (a) Owing to its unparalleled capacity to navigate the intricacies of the contemporary economic environment.
- (b) As it achieved success in the 1980s, Maria Silva was overly confident about its effectiveness.
- (c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy**
- (d) Since João Rodrigues was adopting a Keynesian approach, it impeded the success of Maria Silva's approach.

6. In the following questions, each set presents two sentences with two blanks. Select the most appropriate pair from the options provided to complete both the sentences and ensure coherence.

(I) As she delved into the \_\_\_\_\_ details of the ancient manuscript, she remained \_\_\_\_\_ to the passage of time, enraptured by the mysteries unfolding before her.

(II) Lost in the \_\_\_\_\_ labyrinth of his thoughts, he remained \_\_\_\_\_ to the bustling city around him, contemplating the enigma of his own existence.

(a) inundated, constructive

**(b) intricate, oblivious**

(c) serendipitous, resilient

(d) deliberate, hesitant

7. What is the synonym of the word 'Aplomb'?

(a) Self-distrust

(b) Insecurity

**(c) Confidence**

(d) Diffidence

8. Select the option that can be used as a one-word substitute for the given group of words:

Something that pertains to controversy

- (a) Perusal
- (b) Laudatory
- (c) Putative
- (d) Polemical**

9. A sentence or a part of the sentence is highlighted. Four alternatives marked as (a), (b), (c) and (d) are given as substitutions for the highlighted part, one of which will improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the option "No improvement is required" i.e. (e).

She says that **when experienced bikers** heard what she was going to do, they ridiculed her and did not think it was possible to pull off.

- a) experienced bikers that
- b) experience bikers are
- c) while experienced bikers are
- d) No improvement is required.**

10. Select the most appropriate meaning of the given idiom.

Fly into a passion

- (a) To be aggressive at times
- (b) To become aggressive often
- (c) To become angry suddenly**
- (d) To be always angry

## **ANNEXURE-III**

### **Syllabus, Degree of Difficulty, Model Question paper for the post of Asstt. Manager (Safety)**

#### **Syllabus:**

(a) Technical questions on Safety: The Dock Workers (Safety, Health and Welfare) Act, 1986 and Rules & Regulations framed thereunder, The Environmental Protection Act, 1986, The International Convention for the Prevention of Pollution from ships (MARPOL 73/78), Safety of life at sea (SOLAS) international Convention, 1974, International Ship and Port Facility (ISPS) Code Amendment, Air Pollution Prevention and Control Act, 1981, Water Pollution Prevention and Control Act, 1974, Hazardous Waste Management and Handling Rules, 2016, E-Waste Management and handling Rules, 2016, Noise Pollution Mitigation Rules, 2002, The Food Safety and Standards Act, 2006, Electricity Act, 2003 and Rules and Regulations framed thereunder like Central Electricity Authority (Measures relating to Safety and Electrical Supply) Regulations, 2010, The Workmen's Compensation Act, 1923, The Manufacture, Storage And Import of Hazardous Chemical (Amendment) Rules, 1989.

(b) Test of Reasoning [Graduate Level]

(c) Quantitative Aptitude [Graduate Level]

(d) General Awareness [Graduate Level]

(e) English Language [Graduate Level]

#### **Degree of Difficulty : Moderate to Difficult**

**Model Question paper (MCQ Type)** : The sample question paper for the sections of (a) Technical questions on Safety, (b) Test of Reasoning, (c) Quantitative Aptitude (d) General Awareness and (e) English Language for Direct Recruitment for the post of Asstt. Manager (Safety) under SMPK is attached herewith. These questions are for indicative purpose only. The actual number of questions and the marks distribution shall be as given under 'Structure of On-line examination' in the Advertisement No. DR/24/01 dated 22.10.2024. Candidates are expected to have knowledge of the relevant and related topics mentioned in the question paper.

### **Technical questions on Safety**

1. What is the minimum safe distance to maintain from overhead power lines?
  - a. 2 feet
  - b. 5 feet
  - c. 10 feet**
  - d. 15 feet.
  
2. What is the purpose of confined space rescue plan?
  - a. To outline the work schedule in the confined space.
  - b. To establish procedures for safely rescuing workers in case of emergencies.**
  - c. To limit access to the confined space.
  - d. To determine the types of equipment needed for entry.
  
3. What is the first step in handling chemicals safely?
  - a. Read the labels and SDS**
  - b. Use them quickly to avoid spills.
  - c. Guess their purpose based on appearance.
  - d. Wear PPE at all times.
  
4. What does OSHA stand for?
  - a. Occupational Safety and Health Administration**
  - b. Office of Safety and Hazard Assessment.
  - c. Organization for Standardize Hazard Assessment.
  - d. Occupational Safety Handbook Association.
  
5. Regulation 93 of the Dock Workers (Safety, Health and Welfare ) Regulations , 1990 explains ?
  - a. Welfare Officers
  - b. Safety Officers**
  - c. Environment Officers
  - d. Health Officers
  
6. The ABC of the basic life Support are:-
  - a. Airway, Breathing, Circulation.**
  - b. Airways, Bridge, Canal.
  - c. Action, Breathing, Circulation.
  - d. None of the above.
  
7. Which of the following colour is used for Radiation hazard?
  - a. Red
  - b. Orange
  - c. Green
  - d. Purple.**

8. When was OSHA enacted?
- a. 1980
  - b. 1930
  - c. 1945
  - d. 1970**
9. Working in non-neutral positions may lead to:
- a. Cumulative Trauma Disorders
  - b. Joint Discomfort
  - c. Both A and B**
  - d. None of the above
10. Chemical formula of gas leaked during Bhopal Gas Tragedy?
- a.  $\text{CH}_3\text{NCO}$**
  - b.  $\text{C}_2\text{H}_5\text{NCO}$
  - c.  $\text{C}_7\text{H}_9\text{NO}$
  - d.  $\text{CH}_3\text{NO}$

## **Test of Reasoning**

Directions (1-2): Read the given information carefully and answer the questions based on it:

Five spouses sit in two parallel rows in such a way that five persons sit in each row. All the females sit in row 1 and face south while all the males sit in row 2 and face north. The persons of both rows face each other. The persons of row 1 like different fruits and the persons of row 2 like different flowers. The fruits are Apple, Cherry, Mango, Orange, Papaya. The flowers are Lily, Rose, Daisy, Tulip, Orchid. The persons are B, C, E, K, L, M, R, S, U, T. The information of fruits, flowers and persons is not used in the same sequence as given.

Note: Spouses do not face each other. (Ex.- If A and B are spouse, then A and B do not face each other). The one who likes orange faces R's husband who sits just left of S. K does not sit at any end. Two persons sit between C and E's wife. The one who likes Daisy sits just right of B's husband. M's husband sits second to the right of the one who likes Orchid. L faces the one who likes rose and sits just left of the one who likes papaya. One person sits between M and the one who faces the one who likes Tulip. C sits just left of the one who likes cherry. The number of persons sit to the right of the one who likes papaya is same as the number of persons sit to the left of the one who likes apple. E is not M's husband. One person sits between S and T who is neither M's husband nor sit at any end of the row. No person sits between the one who likes cherry and the one who faces M's husband. U doesn't sit adjacent to E

1. Who among the following is wife of K?

- (a) The one who sits just right of M
- (b) The one who faces E
- (c) The one who likes cherry**
- (d) The one who faces the one who likes Orchid

2. U's wife likes which of the following fruit?

- (a) Apple
- (b) Mango
- (c) Papaya
- (d) Orange**

3. In each question below, some statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows from the given statements, disregarding commonly known facts. Give answer -

Statements:

Only a few Tube is Well.  
All Well is Pipe.  
Some Well is not Tank.

Conclusions:

- I. All Tube being Tank is a possibility.
- II. All Pipe being Tank is a possibility.



**(a) If only conclusion I follows**

(b) If only conclusion II follows

(c) If either conclusion I or II follows

(d) If neither conclusion I nor II follows

(e) If both conclusions I and II follow

4. In a code language, COMPUTER is written as OCREPMTU. How will DAUGHTER be written in the same language?

(a) READTHGU

(b) ADTHREGU

**(c) ADREGUTH**

(d) ADERUGTH

5. Which number will replace the question mark (?) in the following series?

98, 95, 86, 82, 66, ?, 36

(a) 58

(b) 60

**(c) 61**

(d) 63

6. Select the combination of letters that when sequentially placed in the gaps of the given letter series will complete the series.

b\_bab\_bc\_abbba\_ba\_b

(a) cbbac

(b) cbabc

**(c) cbbcb**

(d) bcbab

7. Select the mirror image of the given when the mirror is placed to the right of the figure.



(a)



(b)



(c)



(d)



**Ans : (b)**

8. Read the given information carefully and answer the questions based on it: In a certain code language,

‘Several single port around’ is coded as ‘po xl yu vb’

‘Single event cost edition’ is coded as ‘rf zx vb wa’ ‘Cost around public order’ is coded as ‘km po rf tf’ ‘Public host winter edition’ is coded as ‘vc ur km zx’ What will the code for ‘Single winter order’?

(a) **vb ur tf**

(b) xl vc tf

(c) vb vc km

(d) po tf km

(e) yu vc ur

9. Find the missing number.

3	2	9
4	6	1
5	5	5
72	73	?

(a) 74

(b) 63

(c) 65

**(d) 60**

10. In a certain code language,

‘A+B’ means ‘A is the mother of B’,

‘A-B’ means ‘A is the father of B’,

‘A \$ B’ means ‘A is the son of B’

‘A % B’ means ‘A is the sister of B’

‘A / B’ means ‘A is the wife of B’ and

‘A = B’ means “A is the brother of B’.

Which of the following means A is the daughter of K?

i.  $A + K / J - P = D$

ii.  $J \% P = K + A = D$

iii.  $K + A / P - D \% J$

iv.  $D + K = A / P - J$

(a) ii

**(b) iii**

(c) iv

(d) i

## Quantitative Aptitude

1. Mr. Ajay Dube invested a certain sum at simple interest for 4 years such that  $\frac{3}{7}$  of the sum was invested at 7% per annum,  $\frac{2}{5}$  of the sum at 9% per annum and the remaining at 11% per annum. If the total interest received is RS. 11880, the total sum invested is  
(a) **35000**  
(b) 38000  
(c) 32000  
(d) 30000s
2. A dishonest shopkeeper claims that he is selling mustard oil at Rs. 160/kg which cost him Rs. 120/kg but he gives 900 ml instead of 1 liter. What is his profit percentage?  
(a) **48.14%**  
(b) 57.12%  
(c) 57.18%  
(d) 42.28%
3. A cone of radius 90 cm and height 120 cm stands on its base. It is cut into 3 parts by 2 cuts parallel to its base such that the height of the three parts (from top to bottom) are in ratio of 1:23. What is the total surface area (in  $\text{cm}^2$ ) of the middle part?  
(a) 14600  
(b) **16500**  
(c) 17800  
(d) 18500
4. If a 6-digit number  $9xyz67$  is divisible by 7, 11 and 13, then what is the average of x,y and z?  
a)  $7\frac{2}{3}$   
(b)  **$7\frac{1}{3}$**   
(c)  $6\frac{2}{3}$   
(d)  $6\frac{1}{3}$
5. If x beakers of 100 ml containing 1:4 acid-water solution are mixed with y beakers of 200 ml containing 3: 17 acid-water solution then the ratio of acid to water in the resulting mixture becomes 19:91. Find x : y.  
(a) **5:3**  
(b) 3:5  
(c) 7:13  
(d) 13:7
6. Two persons P and Q together can complete another work 'Y' in  $(x+12)$  days, while Q and R together can complete the same work in  $(y - 2)$  days. If P, Q and R together can compete the work 'Y' in  $\frac{6x}{(y-7)}$  days, then find efficiency of 'Q' is what percent more or less than efficiency of 'P'.  
(a) 80%

- (b) 120%
- (c) 100%**
- (d) 150%

7. ABCD is a cyclic quadrilateral in which BD cuts AC at point O such that AO:CO= 2:1. If AB=14.3 cm, BC= 13 cm and CD= 18.7 cm. Find the value of AD.

- (a) 17 cm
- (b) 34 cm**
- (c) 51 cm
- (d) 42.5 cm

8.  $Ja^3 + Kb^3 + Lc^3 - 36abc = (Xa + Yb + Zc)(4a^2 + 9b^2 + 4c^2 - 6ab - 6bc - 4ac)$ , then find  $(J + K + L)(X + Y + Z) = ?$

- (a) 298
- (b) 301**
- (c) 307
- (d) 291

9. The cost of a diamond varies directly as the square of its weight. Once the diamond broke into four pieces with weight in the ratio of 4:3:2:1. When the piece was sold, the merchant got Rs. 63,000/- less than that of one piece. Find the original price of diamond.

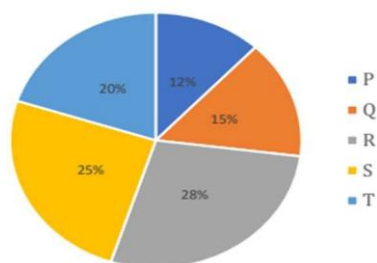
- (a) Rs. 86,000/-
- (b) Rs. 80,000.5/-
- (c) Rs. 90,000/-**
- (d) Rs. 75,000/-

10. Given pie chart shows percentage distribution of students who play 'Pubg' from five different colleges (P, Q, R, S & T) and table shows number of students who have Royal elite pass. Read the data carefully and answer the questions.

Note- Student who play Pubg = Student who have royal elite pass + Student who do not have royal elite pass.

College	Students who have Royal elite pass
P	440
Q	500
R	880
S	700
T	360

Total students play Pubg = 6000



If total boys who do not have Royal elite pass is  $66\frac{2}{3}\%$  more than total girls who do not have Royal elite pass from S, then find ratio of total boys who do not have Royal elite pass from S to total students who do not have Royal elite pass P & R together?

- (a) 25 : 64
- (b) **25 : 54**
- (c) 25 : 58
- (d) 25 : 52

### General English

- In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that should interchange. If the sentence is correct as it is then, select option "No interchange required" as your choice.

The primitive **mirror** (A) society was built to **virtual** (B) the carefree state of **lived** (C) that people once **nature** (D) in.

- (a) A-C & B-D
- (b) B-C
- (c) **A-B & C-D**
- (d) A-D
- (e) No interchange required

- In each of the question given below, a statement has been given with a blank. Some words or phrases have been given in the options following the statement. Choose the most appropriate word or phrase that could fit in the statement to make it contextually meaningful and grammatically correct.

Because the critics called the play a \_\_\_\_\_ failure, few people purchased tickets for the stage production.

- (a) jocund

(b) mirthful

(c) **dismal**

(d) blithe

3. Each question is divided into four parts where one of the parts may or may not contain an error. Choose the part that has the error as your answer.

Despite the team's efforts (A)/ to find flaws, they couldn't identify (B)/ no flaws in the project, (C)/ making it a remarkable success. (D)

(a) A

(b) B

(c) **C**

(d) D

4. Rearrange the following sentences in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

(A) Moreover, in today's world, the influence of social media extends far beyond personal connections, shaping public opinion and driving societal change.

(B) These platforms enable users to share their thoughts, photos, and experiences with a global audience.

(C) However, the impact of social media on mental health and privacy concerns are growing issues. (D) Platforms like Facebook, Twitter, and Instagram have become integral parts of our daily lives.

(E) It's essential for users to be mindful of their online presence and digital footprint.

(F) Social media has revolutionized the way we connect and communicate in the digital age.

Rearrangement the sentences in proper order?

(a) ABDCFE

(b) **FDBACE**

(c) FDABCE

(d) FBADEC

5. Read the following passage and answer the given questions.

In the intricate tapestry of the Middle East's economic landscape, countries face enduring challenges, and Portugal's ministerial predicament sheds light on the shortcomings of past economic philosophies. Two ministers, Maria Silva and João Rodrigues, grapple with distinct

and now seemingly inadequate approaches, reflecting a negative tone in the quest to revive the economy.

Maria Silva, advocating a meticulous, methodical approach, once celebrated for its practicality, finds her strategies faltering in the face of evolving challenges. Studying the highs and lows of the economy and addressing root causes was once considered a robust strategy.

On the opposing front, João Rodrigues champions an immediate solution – the infusion of cash and monetary resources into the economy. This Keynesian approach, effective in the past, now reveals its flaws in the contemporary economic landscape. Rapid cash injections, while providing a quick fix, risk contributing to inflation and fail to address the deep-seated, structural issues at the heart of the economic challenges.

These once-successful policies from the 1980s are now proving inadequate in the current scenario. The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy. Conversely, Rodrigues' cash infusion strategy, while providing short-term relief, lacks the foresight needed to address the intricate challenges that have evolved over time.

The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches. The difficulty in reviving the Middle East's economy serves as a cautionary tale, emphasizing the imperative for forward-thinking policies that can navigate the intricacies of the contemporary economic environment.

Why does Maria Silva's methodical approach face challenges in the contemporary economic landscape, according to the passage?

(a) Owing to its unparalleled capacity to navigate the intricacies of the contemporary economic environment.

(b) As it achieved success in the 1980s, Maria Silva was overly confident about its effectiveness.

**(c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy**

(d) Since João Rodrigues was adopting a Keynesian approach, it impeded the success of Maria Silva's approach.

6. In the following questions, each set presents two sentences with two blanks. Select the most appropriate pair from the options provided to complete both the sentences and ensure coherence.

(I) As she delved into the \_\_\_\_\_ details of the ancient manuscript, she remained \_\_\_\_\_ to the passage of time, enraptured by the mysteries unfolding before her. (II) Lost in the \_\_\_\_\_ labyrinth of his thoughts, he remained \_\_\_\_\_ to the bustling city around him, contemplating the enigma of his own existence.



- (a) inundated, constructive
- (b) intricate, oblivious**
- (c) serendipitous, resilient
- (d) deliberate, hesitant

7. What is the synonym of the word 'Aplomb'?

- (a) Self-distrust
- (b) Insecurity
- (c) Confidence**
- (d) Diffidence

8. Select the option that can be used as a one-word substitute for the given group of words:

Something that pertains to controversy

- (a) Perusal
- (b) Laudatory
- (c) Putative
- (d) Polemical**

9. A sentence or a part of the sentence is highlighted. Four alternatives marked as (a), (b), (c) and (d) are given as substitutions for the highlighted part, one of which will improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the option "No improvement is required" i.e. (e).

She says that **when experienced bikers** heard what she was going to do, they ridiculed her and did not think it was possible to pull off.

- a) experienced bikers that
- b) experience bikers are
- c) while experienced bikers are
- d) No improvement is required.**

10. Select the most appropriate meaning of the given idiom.

Fly into a passion

- (a) To be aggressive at times
- (b) To become aggressive often
- (c) To become angry suddenly**
- (d) To be always angry

## **General Awareness**

1. Who composed Buddhacharita?  
(a) Kanishka I  
(b) Kanishka II  
(c) **Asvaghosha**  
(d) Charak
2. Which of the following does not come under Fundamental Duty?  
(a) To promote harmony  
(b) To safeguard public property  
(c) **To protect freedom of speech and expression**  
(d) To protect and improve the natural environment
3. What do we call a device which generates electric energy using chemical energy?  
(a) Potentiometer  
(b) Resistor  
(c) **Cell**  
(d) Metre bridge
4. Which organization recently released the Review of Maritime Transport 2024 report?  
(a) World Bank  
(b) United Nations Development Programme (UNDP)  
(c) **United Nations Conference on Trade and Development (UNCTAD)**  
(d) International Monetary Fund (IMF)
5. Recently, the Indian Space Research Organisation has launched its first analogue space mission in which city?  
(a) **Leh**  
(b) Jaisalmer  
(c) Chennai  
(d) Visakhapatnam
6. Revenue-neutral rate (RNR) is a component of which of the following taxes in India?  
(a) **Goods and Services Tax (GST)**  
(b) Income tax  
(c) Customs  
(d) Excise duty<sup>3</sup>
7. From time to time, the “International Debt Report” is released by which organization?  
(a) International Monetary Fund  
(b) **World Bank**  
(c) World Economic Forum  
(d) Asian Development Bank

8. India has launched an operation by what name to provide emergency relief in the wake of typhoon 'Yagi' in Laos, Myanmar and Vietnam?
- (a) **Operation Sadbhav**
  - (b) Operation Control
  - (c) Operation Help
  - (d) Operation Rahat
9. In which state, the country's first 'Rice ATM' has been launched recently for ration card beneficiaries?
- (a) Haryana (Karnal)
  - (b) Bihar (Purnia)
  - (c) **Odisha (Bhubaneswar)**
  - (d) Jharkhand (Dumka)
10. Recently, ISRO has successfully landed which Reusable Launch Vehicle (RLV) for the third consecutive time?
- (a) Dushyant
  - (b) Lotus
  - (c) **Pushpak**
  - (d) Tejas

## **ANNEXURE-IV**

**Name of post-** Sr. Asstt. Secretary (Official Language)

### **Syllabus:**

- (a) Test of Reasoning [Graduate Level]
- (b) Quantitative Aptitude [Graduate Level]
- (c) General Awareness [Graduate Level]
- (d) English Language [Graduate Level]
- (e) Hindi Language –

This Paper will contain the knowledge of Hindi language based on error recognition, fill in the blanks, vocabulary, spellings, grammar, sentence structure, synonyms, antonyms, sentence completion, correct use of words, phrases and idioms, ability to write language correctly, precisely and effectively. This will also contain translation knowledge from Hindi to English and English to Hindi which test the candidates' translation skills and their ability to write the two languages correctly, precisely and effectively.

**Degree of Difficulty** : Moderate to Difficult

**Model Question paper (MCQ Type)** : The sample question paper for the sections of (a) Test of Reasoning, (b) Quantitative Aptitude, (c) General Awareness and (d) English Language for Direct Recruitment under SMPK is attached herewith. These questions (10 in each section) are for indicative purpose only. The actual number of questions and the marks distribution shall be as given under '*Structure of On-line examination*' in the Advertisement No. DR/25/14 dated 15.09.2025. Candidates are expected to have knowledge of the relevant and related topics mentioned in the question paper.

### **Test of Reasoning**

Directions (1-2): Read the given information carefully and answer the questions based on it:

Five spouses sit in two parallel rows in such a way that five persons sit in each row. All the females sit in row 1 and face south while all the males sit in row 2 and face north. The persons of both rows face each other. The persons of row 1 like different fruits and the persons of row 2 like different flowers. The fruits are Apple, Cherry, Mango, Orange, Papaya. The flowers are Lily, Rose, Daisy, Tulip, Orchid. The persons are B, C, E, K, L, M, R, S, U, T. The information of fruits, flowers and persons is not used in the same sequence as given.

Note: Spouses do not face each other. (Ex.- If A and B are spouse, then A and B do not face each other). The one who likes orange faces R's husband who sits just left of S. K does not sit at any end. Two persons sit between C and E's wife. The one who likes Daisy sits just right of B's husband.

M's husband sits second to the right of the one who likes Orchid. L faces the one who likes rose and sits just left of the one who likes papaya. One person sits between M and the one who faces the one who likes Tulip. C sits just left of the one who likes cherry. The number of persons sit to the right of the one who likes papaya is same as the number of persons sit to the left of the one who likes apple. E is not M's husband. One person sits between S and T who is neither M's husband nor sits at any end of the row. No person sits between the one who likes cherry and the one who faces M's husband. U doesn't sit adjacent to E

1. Who among the following is wife of K?

- (a) The one who sits just right of M
- (b) The one who faces E
- (c) The one who likes cherry**
- (d) The one who faces the one who likes Orchid

2. U's wife likes which of the following fruit?

- (a) Apple
- (b) Mango
- (c) Papaya
- (d) Orange**

3. In each question below, some statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows from the given statements, disregarding commonly known facts. Give answer -

Statements:

Only a few Tube is Well.  
All Well is Pipe.  
Some Well is not Tank.

Conclusions:

- I. All Tube being Tank is a possibility.
- II. All Pipe being Tank is a possibility.

**(a) If only conclusion I follows**

- (b) If only conclusion II follows
- (c) If either conclusion I or II follows
- (d) If neither conclusion I nor II follows
- (e) If both conclusions I and II follow

4. In a code language, COMPUTER is written as OCREPMTU. How will DAUGHTER be written in the same language?

- (a) READTHGU
- (b) ADTHREGU
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5. Which number will replace the question mark (?) in the following series?

98, 95, 86, 82, 66, ?, 36

- (a) 58
- (b) 60
- (c) **61**
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6. Select the combination of letters that when sequentially placed in the gaps of the given letter series will complete the series.

b\_bab\_bc\_abbba\_ba\_b

- (a) cbbac
- (b) cbabc
- (c) **cbbcb**
- (d) bcbab

7. Select the mirror image of the given when the mirror is placed to the right of the figure.



- (a)
- (b)
- (c)
- (d)

**Ans : (b)**

8. Read the given information carefully and answer the questions based on it: In a certain code language,

‘Several single port around’ is coded as ‘po xl yu vb’

‘Single event cost edition’ is coded as ‘rf zx vb wa’

‘Cost around public order’ is coded as ‘km po rf tf’

‘Public host winter edition’ is coded as ‘vc ur km zx’

What will the code for ‘Single winter order’?

(a) **vb ur tf**

(b) xl vc tf

(c) vb vc km

(d) po tf km

(e) yu vc ur

9. Find the missing number.

3	2	9
4	6	1
5	5	5
72	73	?

(a) 74

(b) 63

(c) 65

(d) **60**

10. In a certain code language,

‘A+B’ means ‘A is the mother of B’,

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‘A \$ B’ means ‘A is the son of B’

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‘A / B’ means ‘A is the wife of B’ and

‘A = B’ means “A is the brother of B”.

Which of the following means A is the daughter of K?

i.  $A + K / J - P = D$

ii.  $J \% P = K + A = D$

iii.  $K + A / P - D \% J$

iv.  $D + K = A / P - J$

(a) ii

(b) **iii**

(c) iv

(d) i

## Quantitative Aptitude

1. Mr. Ajay Dube invested a certain sum at simple interest for 4 years such that  $\frac{3}{7}$  of the sum was invested at 7% per annum,  $\frac{2}{5}$  of the sum at 9% per annum and the remaining at 11% per annum. If the total interest received is RS. 11880, the total sum invested is  
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3. A cone of radius 90 cm and height 120 cm stands on its base. It is cut into 3 parts by 2 cuts parallel to its base such that the height of the three parts (from top to bottom) are in ratio of 1:23. What is the total surface area (in  $\text{cm}^2$ ) of the middle part?  
(a) 14600  
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4. If a 6-digit number  $9xyz67$  is divisible by 7, 11 and 13, then what is the average of x,y and z?  
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5. If x beakers of 100 ml containing 1:4 acid-water solution are mixed with y beakers of 200 ml containing 3: 17 acid-water solution then the ratio of acid to water in the resulting mixture becomes 19:91. Find x : y.  
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(b) 3:5  
(c) 7:13  
(d) 13:7
6. Two persons P and Q together can complete another work 'Y' in  $(x+12)$  days, while Q and R together can complete the same work in  $(y - 2)$  days. If P, Q and R together can compete the work 'Y' in  $\frac{6x}{(y-7)}$  days, then find efficiency of 'Q' is what percent more or less than efficiency of 'P'.  
(a) 80%



- (b) 120%
- (c) 100%**
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7. ABCD is a cyclic quadrilateral in which BD cuts AC at point O such that AO:CO= 2:1. If AB=14.3 cm, BC= 13 cm and CD= 18.7 cm. Find the value of AD.

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- (d) 42.5 cm

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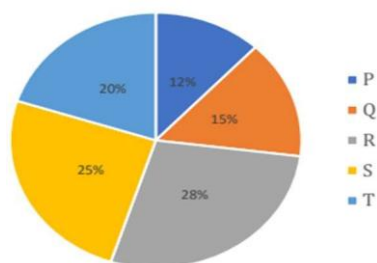
- (a) Rs. 86,000/-
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10. Given pie chart shows percentage distribution of students who play 'Pubg' from five different colleges (P, Q, R, S & T) and table shows number of students who have Royal elite pass. Read the data carefully and answer the questions.

Note- Student who play Pubg = Student who have royal elite pass + Student who do not have royal elite pass.

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Total students play Pubg = 6000



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- (a) A-C & B-D
- (b) B-C
- (c) **A-B & C-D**
- (d) A-D
- (e) No interchange required

- In each of the question given below, a statement has been given with a blank. Some words or phrases have been given in the options following the statement. Choose the most appropriate word or phrase that could fit in the statement to make it contextually meaningful and grammatically correct.

Because the critics called the play a \_\_\_\_\_ failure, few people purchased tickets for the stage production.

- (a) jocund

(b) mirthful

(c) **dismal**

(d) blithe

3. Each question is divided into four parts where one of the parts may or may not contain an error. Choose the part that has the error as your answer.

Despite the team's efforts (A)/ to find flaws, they couldn't identify (B)/ no flaws in the project, (C)/ making it a remarkable success. (D)

(a) A

(b) B

(c) **C**

(d) D

4. Rearrange the following sentences in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

(A) Moreover, in today's world, the influence of social media extends far beyond personal connections, shaping public opinion and driving societal change.

(B) These platforms enable users to share their thoughts, photos, and experiences with a global audience.

(C) However, the impact of social media on mental health and privacy concerns are growing issues. (D) Platforms like Facebook, Twitter, and Instagram have become integral parts of our daily lives.

(E) It's essential for users to be mindful of their online presence and digital footprint.

(F) Social media has revolutionized the way we connect and communicate in the digital age.

Rearrangement the sentences in proper order?

(a) ABDCFE

(b) **FDBACE**

(c) FDABCE

(d) FBADEC

5. Read the following passage and answer the given questions.

In the intricate tapestry of the Middle East's economic landscape, countries face enduring challenges, and Portugal's ministerial predicament sheds light on the shortcomings of past economic philosophies. Two ministers, Maria Silva and João Rodrigues, grapple with distinct

and now seemingly inadequate approaches, reflecting a negative tone in the quest to revive the economy.

Maria Silva, advocating a meticulous, methodical approach, once celebrated for its practicality, finds her strategies faltering in the face of evolving challenges. Studying the highs and lows of the economy and addressing root causes was once considered a robust strategy.

On the opposing front, João Rodrigues champions an immediate solution – the infusion of cash and monetary resources into the economy. This Keynesian approach, effective in the past, now reveals its flaws in the contemporary economic landscape. Rapid cash injections, while providing a quick fix, risk contributing to inflation and fail to address the deep-seated, structural issues at the heart of the economic challenges.

These once-successful policies from the 1980s are now proving inadequate in the current scenario. The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy. Conversely, Rodrigues' cash infusion strategy, while providing short-term relief, lacks the foresight needed to address the intricate challenges that have evolved over time.

The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches. The difficulty in reviving the Middle East's economy serves as a cautionary tale, emphasizing the imperative for forward-thinking policies that can navigate the intricacies of the contemporary economic environment.

Why does Maria Silva's methodical approach face challenges in the contemporary economic landscape, according to the passage?

(a) Owing to its unparalleled capacity to navigate the intricacies of the contemporary economic environment.

(b) As it achieved success in the 1980s, Maria Silva was overly confident about its effectiveness.

**(c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy**

(d) Since João Rodrigues was adopting a Keynesian approach, it impeded the success of Maria Silva's approach.

6. In the following questions, each set presents two sentences with two blanks. Select the most appropriate pair from the options provided to complete both the sentences and ensure coherence.

(I) As she delved into the \_\_\_\_\_ details of the ancient manuscript, she remained \_\_\_\_\_ to the passage of time, enraptured by the mysteries unfolding before her. (II) Lost in the \_\_\_\_\_ labyrinth of his thoughts, he remained \_\_\_\_\_ to the bustling city around him, contemplating the enigma of his own existence.

- (a) inundated, constructive
- (b) intricate, oblivious**
- (c) serendipitous, resilient
- (d) deliberate, hesitant

7. What is the synonym of the word 'Aplomb'?

- (a) Self-distrust
- (b) Insecurity
- (c) Confidence**
- (d) Diffidence

8. Select the option that can be used as a one-word substitute for the given group of words:

Something that pertains to controversy

- (a) Perusal
- (b) Laudatory
- (c) Putative
- (d) Polemical**

9. A sentence or a part of the sentence is highlighted. Four alternatives marked as (a), (b), (c) and (d) are given as substitutions for the highlighted part, one of which will improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the option "No improvement is required" i.e. (e).

She says that **when experienced bikers** heard what she was going to do, they ridiculed her and did not think it was possible to pull off.

- a) experienced bikers that
- b) experience bikers are
- c) while experienced bikers are
- d) No improvement is required.**

10. Select the most appropriate meaning of the given idiom.

Fly into a passion

- (a) To be aggressive at times
- (b) To become aggressive often
- (c) To become angry suddenly**
- (d) To be always angry

## **General Awareness**

1. Who composed Buddhacharita?  
(a) Kanishka I  
(b) Kanishka II  
(c) **Asvaghosha**  
(d) Charak
2. Which of the following does not come under Fundamental Duty?  
(a) To promote harmony  
(b) To safeguard public property  
(c) **To protect freedom of speech and expression**  
(d) To protect and improve the natural environment
3. What do we call a device which generates electric energy using chemical energy?  
(a) Potentiometer  
(b) Resistor  
(c) **Cell**  
(d) Metre bridge
4. Which organization recently released the Review of Maritime Transport 2024 report?  
(a) World Bank  
(b) United Nations Development Programme (UNDP)  
(c) **United Nations Conference on Trade and Development (UNCTAD)**  
(d) International Monetary Fund (IMF)
5. Recently, the Indian Space Research Organisation has launched its first analogue space mission in which city?  
(a) **Leh**  
(b) Jaisalmer  
(c) Chennai  
(d) Visakhapatnam
6. Revenue-neutral rate (RNR) is a component of which of the following taxes in India?  
(a) **Goods and Services Tax (GST)**  
(b) Income tax  
(c) Customs  
(d) Excise duty<sup>3</sup>
7. From time to time, the “International Debt Report” is released by which organization?  
(a) International Monetary Fund  
(b) **World Bank**  
(c) World Economic Forum  
(d) Asian Development Bank

8. India has launched an operation by what name to provide emergency relief in the wake of typhoon 'Yagi' in Laos, Myanmar and Vietnam?
- (a) **Operation Sadbhav**
  - (b) Operation Control
  - (c) Operation Help
  - (d) Operation Rahat
9. In which state, the country's first 'Rice ATM' has been launched recently for ration card beneficiaries?
- (a) Haryana (Karnal)
  - (b) Bihar (Purnia)
  - (c) **Odisha (Bhubaneswar)**
  - (d) Jharkhand (Dumka)
10. Recently, ISRO has successfully landed which Reusable Launch Vehicle (RLV) for the third consecutive time?
- (a) Dushyant
  - (b) Lotus
  - (c) **Pushpak**
  - (d) Tejas

## **Hindi Language**

1. Translate the following sentence into English:

क्या कभी किसी ने सोचा होगा कि एक दिन हम चाँद पर होंगे! ये सपने जैसा ही था, है ना ? लेकिन अब लगता है कि ये निकट भविष्य में सम्भव होने वाला है। ठीक इसी तरह , जो भी कुछ आज हमें मुश्किल लगता है , वो जरूरी नहीं मुश्किल हो। इसलिए , हमें कम से कम प्रयास ज़रूर करना चाहिए और साथ ही , धैर्य भी रखना चाहिए ।

2. Translate the following sentence into Hindi:

E-Tenderers are invited on two Cover ~~Yours (exchange)~~ Commercial Part & Price Part) from resourceful, experienced and bonafide bidders with sound technical and financial capabilities for the above-mentioned work at Haldia Dock Complex. E-Tenderers are not permitted to alter/change/delete/modify any clause of the tender document downloaded from the website. If any deviation/discrepancy is found after submission of tender, the submitted offer will be summarily rejected.

3. दीर्घ का विलोम शब्द क्या होगा ?

- a) लक्षित
- b) लय
- c) लघु
- d) विरक्त

4. रिक्त स्थान के लिए उपयुक्त शब्द क्या होगा?

मैं गाने का ----- कर रहा हूँ ।

- a) श्रम
- b) अभ्यास
- c) कसरत
- d) मेहनत



5. निम्नलिखित में से कौनसा वाक्य शुद्ध है—

- a) यहाँ अपनी हस्ताक्षर कर दीजिए।
- b) यहाँ अपना हस्ताक्षर लिख दीजिए।
- c) यहाँ अपने हस्ताक्षर कर दीजिए।
- d) यहाँ अपना हस्ताक्षर बना दीजिए।

6. चिंता (1) /यह है कि (2)/ होगा (3)/ कैसे (4)/पुनरुत्थान (5)/ देश का (6) क्रम संख्या (1 ) और (2) के बाद वाक्य संरचना का सही क्रम क्या होगा?

- a) 6,4,3,5
- b) 4,3,6,5
- c) 5,6,4,3
- d) 6,5,4,3

7. निम्नलिखित में से कौन सा शब्द सही है?

- a) दुर्लभ
- b) दर्लभ
- c) दुलर्भ
- d) इसमें से कोई नहीं

8. 'नमक मिर्च लगाना' मुहावरे का सही अर्थ क्या है?

- a) परेशान करना
- b) स्वादिष्ट बनाना
- c) बढ़ा-चढ़ा कर कहना
- d) धोखा देना

9. निम्नलिखित में से तत्सम शब्द क्या है?

- a) तालाब
- b) तिनका
- c) ताम्र
- d) तीखा

10. निम्नलिखित में से तद्भव शब्द क्या है?

- a) घृत
- b) घोटक
- c) घर
- d) घट

11. निम्नलिखित में से कौन सा शब्द 'कपट' का पर्यायवाची है?

- a) मद
- b) अमिय
- c) वंचना
- d) अनल

12. प्रतिमान में कौन सा समास है?

- a) द्वंद्व
- b) तत्पुरुष
- c) द्विगु
- d) अव्ययी भाव

13. वर्तनी की दृष्टि से निम्नलिखित में से कौन सा शब्द अशुद्ध है?

- a) समन्वय
- b) स्वास्थ्य
- c) स्थायित्व
- d) सम्राज्

14. 'वाह! वाह!' किस प्रकार का अव्यय है ?

- a) हर्ष बोधक
- b) शोक बोधक
- c) आश्चर्य बोधक
- d) सम्बोधन बोधक

15. 'किसी के पीछे-पीछे चलनेवाला' वाक्यांश के लिए निम्नलिखित में से कौन सा शब्द होगा?

- a) प्रगामी
- b) प्रतिगामी
- c) अनुगामी
- d) आगामी

16. 'मानव ने पुस्तक पढ़ी है' इस वाक्य में कौन सा काल है?

- a) सामान्य वर्तमान
- b) तात्कालिक वर्तमान
- c) पूर्ण वर्तमान
- d) संदिग्ध वर्तमान

17. निम्नलिखित में से कौन सा शब्द स्त्रीलिंग है?

- a) बचपन
- b) बाहुल्य
- c) बनावट
- d) बचाव

18. 'पुराना' किस प्रकार का विशेषण है?

- a) संख्या वाचक
- b) सर्वनामिक
- c) परिमाणबोधक
- d) गुणवाचक

**Name of post-** Dy. Materials Manager

**Syllabus:**

- (a) Test of Reasoning [Graduate Level]
- (b) Quantitative Aptitude [Graduate Level]
- (c) General Awareness [Graduate Level]
- (d) English Language [Graduate Level]
- (e) Technical questions in General Engineering

**Degree of Difficulty :** Moderate to Difficult

**Model Question paper (MCQ Type)** : The sample question paper for the sections of (a) Test of Reasoning, (b) Quantitative Aptitude, (c) General Awareness and (d) English Language for Direct Recruitment under SMPK is attached herewith. These questions (10 in each section) are for indicative purpose only. The actual number of questions and the marks distribution shall be as given under '*Structure of On-line examination*' in the Advertisement No. DR/25/14 dated 15.09.2025. Candidates are expected to have knowledge of the relevant and related topics mentioned in the question paper.

**Test of Reasoning**

Directions (1-2): Read the given information carefully and answer the questions based on it:

Five spouses sit in two parallel rows in such a way that five persons sit in each row. All the females sit in row 1 and face south while all the males sit in row 2 and face north. The persons of both rows face each other. The persons of row 1 like different fruits and the persons of row 2 like different flowers. The fruits are Apple, Cherry, Mango, Orange, Papaya. The flowers are Lily, Rose, Daisy, Tulip, Orchid. The persons are B, C, E, K, L, M, R, S, U, T. The information of fruits, flowers and persons is not used in the same sequence as given.

Note: Spouses do not face each other. (Ex.- If A and B are spouse, then A and B do not face each other). The one who likes orange faces R's husband who sits just left of S. K does not sit at any end. Two persons sit between C and E's wife. The one who likes Daisy sits just right of B's husband. M's husband sits second to the right of the one who likes Orchid. L faces the one who likes rose and sits just left of the one who likes papaya. One person sits between M and the one who faces the one who likes Tulip. C sits just left of the one who likes cherry. The number of persons sit to the right of the one who likes papaya is same as the number of persons sit to the left of the one who likes apple. E is not M's husband. One person sits between S and T who is neither M's husband nor sits

at any end of the row. No person sits between the one who likes cherry and the one who faces M's husband. U doesn't sit adjacent to E

1. Who among the following is wife of K?

- (a) The one who sits just right of M
- (b) The one who faces E
- (c) The one who likes cherry**
- (d) The one who faces the one who likes Orchid

2. U's wife likes which of the following fruit?

- (a) Apple
- (b) Mango
- (c) Papaya
- (d) Orange**

3. In each question below, some statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows from the given statements, disregarding commonly known facts. Give answer -

Statements:

Only a few Tube is Well.

All Well is Pipe.

Some Well is not Tank.

Conclusions:

- I. All Tube being Tank is a possibility.
- II. All Pipe being Tank is a possibility.

**(a) If only conclusion I follows**

- (b) If only conclusion II follows
- (c) If either conclusion I or II follows
- (d) If neither conclusion I nor II follows
- (e) If both conclusions I and II follow

4. In a code language, COMPUTER is written as OCREPMTU. How will DAUGHTER be written in the same language?

- (a) READTHGU
- (b) ADTHREGU
- (c) ADREGUTH**
- (d) ADERUGTH

5. Which number will replace the question mark (?) in the following series?

98, 95, 86, 82, 66, ?, 36

- (a) 58
- (b) 60
- (c) **61**
- (d) 63

6. Select the combination of letters that when sequentially placed in the gaps of the given letter series will complete the series.

b\_bab\_bc\_abbba\_ba\_b

- (a) cbbac
- (b) cbabc
- (c) **cbbcb**
- (d) bcbab

7. Select the mirror image of the given when the mirror is placed to the right of the figure.



- (a)
- (b)
- (c)
- (d)

**Ans : (b)**

8. Read the given information carefully and answer the questions based on it: In a certain code language,

‘Several single port around’ is coded as ‘po xl yu vb’

‘Single event cost edition’ is coded as ‘rf zx vb wa’

‘Cost around public order’ is coded as ‘km po rf tf’

‘Public host winter edition’ is coded as ‘vc ur km zx’

What will the code for ‘Single winter order’?

(a) **vb ur tf**

(b) xl vc tf

(c) vb vc km

(d) po tf km

(e) yu vc ur

9. Find the missing number.

3	2	9
4	6	1
5	5	5
72	73	?

(a) 74

(b) 63

(c) 65

(d) **60**

10. In a certain code language,

‘A+B’ means ‘A is the mother of B’,

‘A-B’ means ‘A is the father of B’,

‘A \$ B’ means ‘A is the son of B’

‘A % B’ means ‘A is the sister of B’

‘A / B’ means ‘A is the wife of B’ and

‘A = B’ means “A is the brother of B”.

Which of the following means A is the daughter of K?

i.  $A + K / J - P = D$

ii.  $J \% P = K + A = D$

iii.  $K + A / P - D \% J$

iv.  $D + K = A / P - J$

(a) ii

(b) **iii**

(c) iv

(d) i

## Quantitative Aptitude

1. Mr. Ajay Dube invested a certain sum at simple interest for 4 years such that  $\frac{3}{7}$  of the sum was invested at 7% per annum,  $\frac{2}{5}$  of the sum at 9% per annum and the remaining at 11% per annum. If the total interest received is RS. 11880, the total sum invested is  
(a) **35000**  
(b) 38000  
(c) 32000  
(d) 30000s
2. A dishonest shopkeeper claims that he is selling mustard oil at Rs. 160/kg which cost him Rs. 120/kg but he gives 900 ml instead of 1 liter. What is his profit percentage?  
(a) **48.14%**  
(b) 57.12%  
(c) 57.18%  
(d) 42.28%
3. A cone of radius 90 cm and height 120 cm stands on its base. It is cut into 3 parts by 2 cuts parallel to its base such that the height of the three parts (from top to bottom) are in ratio of 1:23. What is the total surface area (in  $\text{cm}^2$ ) of the middle part?  
(a) 14600  
(b) **16500**  
(c) 17800  
(d) 18500
4. If a 6-digit number  $9xyz67$  is divisible by 7, 11 and 13, then what is the average of x,y and z?  
a)  $7\frac{2}{3}$   
(b)  **$7\frac{1}{3}$**   
(c)  $6\frac{2}{3}$   
(d)  $6\frac{1}{3}$
5. If x beakers of 100 ml containing 1:4 acid-water solution are mixed with y beakers of 200 ml containing 3: 17 acid-water solution then the ratio of acid to water in the resulting mixture becomes 19:91. Find x : y.  
(a) **5:3**  
(b) 3:5  
(c) 7:13  
(d) 13:7
6. Two persons P and Q together can complete another work 'Y' in  $(x+12)$  days, while Q and R together can complete the same work in  $(y - 2)$  days. If P, Q and R together can compete the work 'Y' in  $\frac{6x}{(y-7)}$  days, then find efficiency of 'Q' is what percent more or less than efficiency of 'P'.  
(a) 80%



- (b) 120%
- (c) 100%**
- (d) 150%

7. ABCD is a cyclic quadrilateral in which BD cuts AC at point O such that AO:CO= 2:1. If AB=14.3 cm, BC= 13 cm and CD= 18.7 cm. Find the value of AD.

- (a) 17 cm
- (b) 34 cm**
- (c) 51 cm
- (d) 42.5 cm

8.  $Ja^3 + Kb^3 + Lc^3 - 36abc = (Xa + Yb + Zc)(4a^2 + 9b^2 + 4c^2 - 6ab - 6bc - 4ac)$ , then find  $(J + K + L)(X + Y + Z) = ?$

- (a) 298
- (b) 301**
- (c) 307
- (d) 291

9. The cost of a diamond varies directly as the square of its weight. Once the diamond broke into four pieces with weight in the ratio of 4:3:2:1. When the piece was sold, the merchant got Rs. 63,000/- less than that of one piece. Find the original price of diamond.

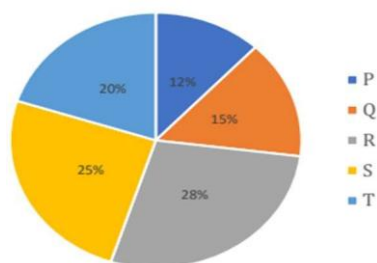
- (a) Rs. 86,000/-
- (b) Rs. 80,000.5/-
- (c) Rs. 90,000/-**
- (d) Rs. 75,000/-

10. Given pie chart shows percentage distribution of students who play 'Pubg' from five different colleges (P, Q, R, S & T) and table shows number of students who have Royal elite pass. Read the data carefully and answer the questions.

Note- Student who play Pubg = Student who have royal elite pass + Student who do not have royal elite pass.

College	Students who have Royal elite pass
P	440
Q	500
R	880
S	700
T	360

Total students play Pubg = 6000



If total boys who do not have Royal elite pass is  $66\frac{2}{3}\%$  more than total girls who do not have Royal elite pass from S, then find ratio of total boys who do not have Royal elite pass from S to total students who do not have Royal elite pass P & R together?

- (a) 25 : 64
- (b) **25 : 54**
- (c) 25 : 58
- (d) 25 : 52

### General English

- In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that should interchange. If the sentence is correct as it is then, select option "No interchange required" as your choice.

The primitive **mirror** (A) society was built to **virtual** (B) the carefree state of **lived** (C) that people once **nature** (D) in.

- (a) A-C & B-D
- (b) B-C
- (c) **A-B & C-D**
- (d) A-D
- (e) No interchange required

- In each of the question given below, a statement has been given with a blank. Some words or phrases have been given in the options following the statement. Choose the most appropriate word or phrase that could fit in the statement to make it contextually meaningful and grammatically correct.

Because the critics called the play a \_\_\_\_\_ failure, few people purchased tickets for the stage production.

- (a) jocund

(b) mirthful

(c) **dismal**

(d) blithe

3. Each question is divided into four parts where one of the parts may or may not contain an error. Choose the part that has the error as your answer.

Despite the team's efforts (A)/ to find flaws, they couldn't identify (B)/ no flaws in the project, (C)/ making it a remarkable success. (D)

(a) A

(b) B

(c) **C**

(d) D

4. Rearrange the following sentences in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

(A) Moreover, in today's world, the influence of social media extends far beyond personal connections, shaping public opinion and driving societal change.

(B) These platforms enable users to share their thoughts, photos, and experiences with a global audience.

(C) However, the impact of social media on mental health and privacy concerns are growing issues. (D) Platforms like Facebook, Twitter, and Instagram have become integral parts of our daily lives.

(E) It's essential for users to be mindful of their online presence and digital footprint.

(F) Social media has revolutionized the way we connect and communicate in the digital age.

Rearrangement the sentences in proper order?

(a) ABDCFE

(b) **FDBACE**

(c) FDABCE

(d) FBADEC

5. Read the following passage and answer the given questions.

In the intricate tapestry of the Middle East's economic landscape, countries face enduring challenges, and Portugal's ministerial predicament sheds light on the shortcomings of past economic philosophies. Two ministers, Maria Silva and João Rodrigues, grapple with distinct

and now seemingly inadequate approaches, reflecting a negative tone in the quest to revive the economy.

Maria Silva, advocating a meticulous, methodical approach, once celebrated for its practicality, finds her strategies faltering in the face of evolving challenges. Studying the highs and lows of the economy and addressing root causes was once considered a robust strategy.

On the opposing front, João Rodrigues champions an immediate solution – the infusion of cash and monetary resources into the economy. This Keynesian approach, effective in the past, now reveals its flaws in the contemporary economic landscape. Rapid cash injections, while providing a quick fix, risk contributing to inflation and fail to address the deep-seated, structural issues at the heart of the economic challenges.

These once-successful policies from the 1980s are now proving inadequate in the current scenario. The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy. Conversely, Rodrigues' cash infusion strategy, while providing short-term relief, lacks the foresight needed to address the intricate challenges that have evolved over time.

The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches. The difficulty in reviving the Middle East's economy serves as a cautionary tale, emphasizing the imperative for forward-thinking policies that can navigate the intricacies of the contemporary economic environment.

Why does Maria Silva's methodical approach face challenges in the contemporary economic landscape, according to the passage?

(a) Owing to its unparalleled capacity to navigate the intricacies of the contemporary economic environment.

(b) As it achieved success in the 1980s, Maria Silva was overly confident about its effectiveness.

**(c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy**

(d) Since João Rodrigues was adopting a Keynesian approach, it impeded the success of Maria Silva's approach.

6. In the following questions, each set presents two sentences with two blanks. Select the most appropriate pair from the options provided to complete both the sentences and ensure coherence.

(I) As she delved into the \_\_\_\_\_ details of the ancient manuscript, she remained \_\_\_\_\_ to the passage of time, enraptured by the mysteries unfolding before her. (II) Lost in the \_\_\_\_\_ labyrinth of his thoughts, he remained \_\_\_\_\_ to the bustling city around him, contemplating the enigma of his own existence.

- (a) inundated, constructive
- (b) intricate, oblivious**
- (c) serendipitous, resilient
- (d) deliberate, hesitant

7. What is the synonym of the word 'Aplomb'?

- (a) Self-distrust
- (b) Insecurity
- (c) Confidence**
- (d) Diffidence

8. Select the option that can be used as a one-word substitute for the given group of words:

Something that pertains to controversy

- (a) Perusal
- (b) Laudatory
- (c) Putative
- (d) Polemical**

9. A sentence or a part of the sentence is highlighted. Four alternatives marked as (a), (b), (c) and (d) are given as substitutions for the highlighted part, one of which will improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the option "No improvement is required" i.e. (e).

She says that **when experienced bikers** heard what she was going to do, they ridiculed her and did not think it was possible to pull off.

- a) experienced bikers that
- b) experience bikers are
- c) while experienced bikers are
- d) No improvement is required.**

10. Select the most appropriate meaning of the given idiom.

Fly into a passion

- (a) To be aggressive at times
- (b) To become aggressive often
- (c) To become angry suddenly**
- (d) To be always angry

## **General Awareness**

1. Who composed Buddhacharita?  
(a) Kanishka I  
(b) Kanishka II  
(c) **Asvaghosha**  
(d) Charak
  
2. Which of the following does not come under Fundamental Duty?  
(a) To promote harmony  
(b) To safeguard public property  
(c) **To protect freedom of speech and expression**  
(d) To protect and improve the natural environment
  
3. What do we call a device which generates electric energy using chemical energy?  
(a) Potentiometer  
(b) Resistor  
(c) **Cell**  
(d) Metre bridge
  
4. Which organization recently released the Review of Maritime Transport 2024 report?  
(a) World Bank  
(b) United Nations Development Programme (UNDP)  
(c) **United Nations Conference on Trade and Development (UNCTAD)**  
(d) International Monetary Fund (IMF)
  
5. Recently, the Indian Space Research Organisation has launched its first analogue space mission in which city?  
(a) **Leh**  
(b) Jaisalmer  
(c) Chennai  
(d) Visakhapatnam
  
6. Revenue-neutral rate (RNR) is a component of which of the following taxes in India?  
(a) **Goods and Services Tax (GST)**  
(b) Income tax  
(c) Customs  
(d) Excise duty<sup>3</sup>
  
7. From time to time, the “International Debt Report” is released by which organization?  
(a) International Monetary Fund  
(b) **World Bank**  
(c) World Economic Forum  
(d) Asian Development Bank

8. India has launched an operation by what name to provide emergency relief in the wake of typhoon 'Yagi' in Laos, Myanmar and Vietnam?
- (a) **Operation Sadbhav**
  - (b) Operation Control
  - (c) Operation Help
  - (d) Operation Rahat
9. In which state, the country's first 'Rice ATM' has been launched recently for ration card beneficiaries?
- (a) Haryana (Karnal)
  - (b) Bihar (Purnia)
  - (c) **Odisha (Bhubaneswar)**
  - (d) Jharkhand (Dumka)
10. Recently, ISRO has successfully landed which Reusable Launch Vehicle (RLV) for the third consecutive time?
- (a) Dushyant
  - (b) Lotus
  - (c) **Pushpak**
  - (d) Tejas

**SAMPLE QUESTION PAPER**

**A. MECHANICAL ENGINEERING:**

1: Which gases are used in gas cutting equipment?

- (a) Nitrogen & Oxygen
- (b) Hydrogen & Oxygen
- (c) Oxygen & Acetylene
- (d) Acetylene & Nitrogen

Answer: [c] Oxygen & Acetylene

2: In machine shop, bolt can be made by

- (a) Drilling machine
- (b) Shaper machine
- (c) Lathe
- (d) Grinding machine

Answer: [c] Lathe

3: Bronze is an alloy of

- (a) Copper & Zinc
- (b) Copper & Tin
- (c) Copper, Tin & Zinc
- (d) None of these

Answer: [b] Copper & Tin

4: Which of the following energy conversion devices convert heat into work

- (a) Electrical generator
- (b) I.C. Engine
- (c) Condenser
- (d) All of the above

Answer: [b] I.C. Engine

5: Which gears are used to connect two intersecting shaft areas

- (a) Crossed helical gears
- (b) Worm & worm wheel
- (c) Bevel gears
- (d) All of the above

Answer: [c] Bevel gears

6: Which bearing supports the load acting along the axis of the shaft

- (a) Thrust
- (b) Radial
- (c) Longitudinal
- (d) Transverse



Answer: [a] Thrust

7: What is gear backlash

- (a) The harness of gear materials
- (b) Back gear and front gear
- (c) Clearance between meshing gear teeth
- (d) The thickness of single gear tooth

Answer: [c] Clearance between meshing gear teeth

8: Which of the following is a Non-Quasi- static process?

- (a) Sudden free expansion of a gas
- (b) Rapid compression of a gas in a cylinder
- (c) Expansion of a gas in a cylinder under constant pressure
- (d) Gradual compression of a gas in a cylinder

Answer: [a] Sudden free expansion of gas

9: Discharge of a centrifugal pump is

- (a) Directly proportional to the square of the speed of its impeller
- (b) Inversely proportional to the square of the speed of its impeller
- (c) Inversely proportional to the speed of its impeller
- (d) Directly proportional to speed of its impeller

Answer: [d] Directly proportional to speed of its impeller

10: The maximum theoretical value of suction head for a pump at sea level is

- (a) 10.33 m of water
- (b) 100 m of water
- (c) 103 m of water
- (d) 5 m of water

Answer: [a] 10.33 m of water

## **B. ELECTRICAL ENGINEERING:**

1: What is the use of capacitor bank / APFC panels in power distribution?

- (e) To boost voltage
- (f) To compensate for lagging reactive power
- (g) To reduce line loss
- (h) All of the above

Answer: [d] All of the above

2: Transformer core are laminated in order to

- (a) Minimize eddy current loss

- (b) Reduce cost
- (c) Simplify construction
- (d) Minimize hysteresis loss

Answer: [a] Minimize eddy current loss

3: Which is not a necessary condition for parallel operation of a transformers?

- (a) Same voltage ratio
- (b) Same percentage impedance
- (c) Same KVA rating
- (d) Same polarity

Answer: [c] Same KVA rating

4: Which of the following motors is not self-starting?

- (a) Shunt DC motor
- (b) Induction motor
- (c) Synchronous motor
- (d) Series DC motor

Answer: [c] Synchronous motor

5: Which part of a motor confirms that it is a DC motor?

- (a) Frame
- (b) Shaft
- (c) Stator
- (d) Commutator

Answer: [d] Commutator

6: What should be installed at household to protect personnel from shock hazard?

- (a) Fuse
- (b) MCB
- (c) ELCB
- (d) MCCB

Answer: [d] ELCB

7: If there is an inter turn fault in HT winding of a transformer, which relay should ideally trip ?

- (a) Over-Current
- (b) Differential
- (c) Bucholz
- (d) Both (b) & (c)

Answer: [d] Both (b) & (c)

8: The type of single-phase induction motor, expected to have the maximum power factor during steady state running condition, is

(A) Split phase (resistance start)

(B) Shaded pole

(C) Capacitor start

(D) Capacitor start, capacitor run

Answer: [d] Capacitor start, capacitor run

9: A charger supplies 100 W at 20 V for charging the battery of a laptop. The power devices, used in the converter inside the charger, operate at a switching frequency of 200 kHz. Which power device is best suited for this purpose?

(a) IGBT

(b) Thyristor

(c) MOSFET

(d) BJT Correct

Answer: [c] MOSFET

10. A three phase, 50 Hz, 6 pole induction motor runs at 960 rpm. The stator copper loss, core loss, and the rotational loss of the motor can be neglected. The percentage efficiency of the motor is

(a) 92

(b) 94

(c) 96

(d) 98

Answer: [c] 96