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Complete Solved MCQs with Verified Answers & Explanations

Advanced FPSC & Other Model Papers — Fully Corrected Edition

100

MCQs Solved

100%

Answers Verified

5

Subject Areas

Every question · correct option highlighted & ticked · with a short explanation

SECTION

English (Fill in the Blanks)

Questions 1 – 8

1 A poor man ___ we know nursed the orphan.

A who

B whom ✓

C that

D None of these

✓ Correct Answer: Option B — whom

EXPLANATION

“We know” already has its own subject (we), so the missing word must be the OBJECT pronoun for the man being known — that is “whom”, giving: “A poor man, whom we know, nursed the orphan.”

2 She was compensated ___ the loss of her belongings.

A for ✓

B over

C against

D None of these

✓ Correct Answer: Option A — for

EXPLANATION

The correct preposition after “compensate” (someone) is “for” — compensated FOR a loss.

3 Put your signature ___ blue ink.

A through

B in ✓

C with

D None of these

✓ Correct Answer: Option B — in

EXPLANATION

We write or sign something “in” a particular colour of ink — e.g. “signed in blue ink.”

4 We should not hanker ___ worldly pleasure.

A far

B about

C after ✓

D None of these

✓ Correct Answer: Option C — after

EXPLANATION

“Hanker after” is the fixed idiomatic phrase meaning to have a strong, restless desire for something.

5 I have ___ one rupee note in my hand.

A a ✓

B an

C the

D none of above

✓ Correct Answer: Option A — a

EXPLANATION

“One” begins with the consonant sound /w/ (“wun”), so it takes “a”, not “an” — e.g. “a one-rupee note,” “a one-way street.”

6 While travelling to Karachi, I ran ___ a very old friend of mine.

A into

B against

C across ✓

D None of these

✓ Correct Answer: Option C — across

EXPLANATION

“Run across someone” is the idiom for meeting a person unexpectedly / by chance.

7 It ___ too cold to go out last night so we stayed at home.

A has been

B was ✓

C used to be

D None of these

✓ Correct Answer: Option B — was

EXPLANATION

“Last night” fixes the action in simple past time, so the simple past “was” is required.

8 We should not look ___ the poor.

A It

B down upon ✓

C down

D None of these

✓ Correct Answer: Option B — down upon

EXPLANATION

“Look down upon” is the idiomatic phrase meaning to regard someone as inferior.

SECTION

Idioms

Questions 9 – 11

9 To see eye to eye

A To agree ✓

B To disagree

C To light

D None of these

✓ Correct Answer: Option A — To agree

EXPLANATION

“To see eye to eye (with someone)” means to fully agree with them on a matter.

10 To smell a rat

A To misunderstand

B To suspect a deceit ✓

C To see hidden meaning

D None of these

✓ **Correct Answer: Option B — To suspect a deceit**

EXPLANATION

“To smell a rat” means to suspect that something dishonest or wrong is happening.

11 To be at daggers drawn

A To be lightened

B To be ready to face

C To be bitter enemy ✓

D None of these

✓ **Correct Answer: Option C — To be bitter enemy**

EXPLANATION

“At daggers drawn” describes two parties who are in a state of open, bitter hostility.

SECTION

Synonyms

Questions 12 – 14

12 IGNOMINY**A Humiliation** ✓**B** Victory**C** Sphere**D** Cumbersome✓ **Correct Answer: Option A — Humiliation****EXPLANATION**

Ignominy means public shame or disgrace — closest in meaning to “humiliation.”

13 NETTLED

A Displeased

B Agreed

C Annoyed ✓

D None of these

✓ **Correct Answer: Option C — Annoyed**

EXPLANATION

“Nettled” means irritated or provoked to anger — i.e. “annoyed.”

14 CULPABLE

A Involved

B Guilty ✓

C Affected

D None of these

✓ **Correct Answer: Option B — Guilty**

EXPLANATION

Culpable means deserving blame for a wrongdoing — synonymous with “guilty.”

SECTION

Antonyms

Questions 15 – 17

15 DISDAIN (opposite meaning)

A Humility

B Contempt

C Respect ✓

D None of these

✓ **Correct Answer: Option C — Respect**

EXPLANATION

Disdain means to regard something with contempt; its opposite is “respect.”

16 INDIGNATION (opposite meaning)

A Referees

B Cooperation

C Antagonism

D None of these



✓ **Correct Answer: Option D — None of these**

EXPLANATION

Indignation means righteous anger at something unfair. None of the listed words (referees, cooperation, antagonism) is a genuine opposite, so the best choice is “None of these” (a true antonym would be something like “contentment” or “satisfaction”).

17 OBSTINATE (opposite meaning)

A Aggressive

B Conspicuous

C Cumbersome

D None of those



✓ **Correct Answer: Option D — None of those**

EXPLANATION

Obstinate means stubborn; its real opposite would be “flexible/compliant,” which is not among the options, so “None of these” is correct.

SECTION

Passive Voice

Questions 18 – 18

18 Choose the correct Passive Voice: "A stone strikes on my head."

A I am struck on the head by a stone

B My head has been struck by a stone

C My head was struck by a stone ✓

D None of these

✓ **Correct Answer: Option C — My head was struck by a stone**

EXPLANATION

In passive voice the object of the action ("my head") becomes the subject: "My head was struck by a stone."

SECTION

Narration

Questions 19 – 20

19 He said to her, 'Don't read so fast.'

A He requested her not to read so fast ✓

B He ordered her to read not so fast

C He forbade her to read so fast

D None of these

✓ **Correct Answer: Option A — He requested her not to read so fast**

EXPLANATION

A gentle negative imperative like "Don't read so fast" is best reported as a request, not a harsh order or a forbidding: "He requested her not to read so fast."

20 He said, 'The sun is stationary.'

A He said that the sun is stationary ✓

B He said that the sun was stationary

C He said the sun is stationary

D None of these

✓ **Correct Answer: Option A — He said that the sun is stationary**

EXPLANATION

A universal/scientific truth keeps its present tense even in reported speech: "He said that the sun is stationary."

SECTION

General Knowledge

Questions 21 – 66

21 Where was the Heart of Asia Conference held (2016)?

A Afghanistan

B Nepal

C India ✓

D None of these

✓ **Correct Answer: Option C — India**

EXPLANATION

The 6th Heart of Asia – Istanbul Process Conference was held in Amritsar, India, in December 2016.

22 Which leader of Tamil Nadu died in 2016?

A Jayalalithaa ✓

B Binari

C Sonubhai

D Kaleeho

✓ **Correct Answer: Option A — Jayalalithaa**

EXPLANATION

J. Jayalalithaa, Chief Minister of Tamil Nadu, passed away in December 2016.

23 UAE is a confederation of how many emirates?

A 7



B 8

C 10

D 9

✓ **Correct Answer: Option A — 7**

EXPLANATION

The United Arab Emirates is a federation of 7 emirates.

24 Which is the third largest party of Britain?

A Conservative Party

B Labour Party

C Liberal Democratic Party ✓

D None of these

✓ **Correct Answer: Option C — Liberal Democratic Party**

EXPLANATION

Traditionally cited as the UK's third force alongside Conservative and Labour; note that after the 2015 election the SNP actually held more seats than the Lib Dems, making this a commonly outdated "textbook" answer.

25 Who is the elected Secretary General of UN?

A Ban Ki-moon

B Boutros-Ghali

C Kofi Annan

D None of these ✓

✓ **Correct Answer: Option D — None of these**

EXPLANATION

António Guterres took office as UN Secretary-General on 1 January 2017, so as of this paper's date (8 Jan 2017) the correct sitting Secretary-General is Guterres, who is not listed — hence "None of these." Ban Ki-moon had already completed his term.

26 Who was the first Prime Minister of India?

A Lal Bahadur Shastri

B Moti Lal Nehru

C Jawaharlal Nehru ✓

D None of these

✓ **Correct Answer: Option C — Jawaharlal Nehru**

EXPLANATION

Jawaharlal Nehru became independent India's first Prime Minister in 1947.

27 Who is the Turkish President?

A Najam-ud-Din Arbken

B Binali Yildirim

C Recep Tayyip Erdogan ✓

D None of these

✓ **Correct Answer: Option C — Recep Tayyip Erdogan**

EXPLANATION

Recep Tayyip Erdogan has served as President of Turkey since 2014.

28 Which country joined SAARC long after the others?

A Afghanistan ✓

B India

C Iran

D None of these

✓ **Correct Answer: Option A — Afghanistan**

EXPLANATION

Afghanistan became the 8th and newest member of SAARC in 2007, long after the founding members joined in 1985.

29 The Indus Water Basin Treaty was signed in Karachi by:

A Ayub Khan ✓

B Yahya Khan

C Z.A. Bhutto

D None of these

✓ **Correct Answer: Option A — Ayub Khan**

EXPLANATION

President Ayub Khan signed the Indus Waters Treaty with India in Karachi in September 1960.

30 Which river was surrendered by Pakistan in the Indus Water Basin Treaty?

A Indus

B Chenab

C Jhelum

D None of these ✓

✓ **Correct Answer: Option D — None of these**

EXPLANATION

Under the treaty Pakistan retained the western rivers — Indus, Jhelum and Chenab. It was the eastern rivers (Ravi, Beas, Sutlej) that were given up to India, so none of the listed rivers were surrendered.

31 Quaid-e-Azam Muhammad Ali Jinnah was sworn in as Governor-General of Pakistan on:

A 14th August 1947

B 15th August 1947 ✓

C 8th August 1947

D 17th August 1947

✓ **Correct Answer: Option B — 15th August 1947**

EXPLANATION

Pakistan came into being on 14 August 1947; Jinnah took oath as its first Governor-General the following day, 15 August 1947.

32 The All India Muslim League was founded in 1906 in:

A Delhi

B Dhaka ✓

C Lahore

D Allahabad

✓ **Correct Answer: Option B — Dhaka**

EXPLANATION

The All India Muslim League was founded in Dhaka (Dacca) in December 1906.

33 The Punjab Police Department consists of how many Regional Offices?

A 8

B 10

C 11 ✓

D 12

✓ **Correct Answer: Option C — 11**

EXPLANATION

The Punjab Police (Pakistan) is organised into 11 Regional Police Offices headed by Regional Police Officers (RPOs).

34 Juvenile prisoners are under the age of:

A 14

B 15

C 18



D 16

✓ Correct Answer: Option C — 18

EXPLANATION

Under Pakistan's Juvenile Justice System, a juvenile is defined as a person under 18 years of age.

35 The temporary or permanent release of a prisoner before expiry of sentence on account of good behaviour is called:

A Bail

B Remission

C Parole ✓

D Probation

✓ **Correct Answer: Option C — Parole**

EXPLANATION

This early, conditional release for good behaviour is called “parole.”

36 Khuzdar and Kalat districts are in:

A KPK

B Sindh

C Balochistan ✓

D Kashmir

✓ **Correct Answer: Option C — Balochistan**

EXPLANATION

Khuzdar and Kalat are districts of Balochistan province.

37 Pakistan Steel Mill Karachi was founded with the cooperation of:

A Russia ✓

B China

C Germany

D Japan

✓ **Correct Answer: Option A — Russia**

EXPLANATION

Pakistan Steel Mills was built with the technical and financial assistance of the Soviet Union (Russia), commissioned in 1985.

38 The Elite Force Punjab was formed in:

A 1998 ✓

B 1999

C 2001

D 2002

✓ **Correct Answer: Option A — 1998**

EXPLANATION

The Elite Police Force, Punjab, was raised in 1998 as a specialised anti-terrorism/VIP security unit.

39 Who succeeded Quaid-e-Azam as Governor-General of Pakistan?

A Khawaja Nazimuddin ✓

B Liaquat Ali Khan

C Sikandar Mirza

D None of these

✓ **Correct Answer: Option A — Khawaja Nazimuddin**

EXPLANATION

After Jinnah's death in September 1948, Khawaja Nazimuddin became the second Governor-General of Pakistan.

40 Dr. Abdus Salam won the first Nobel Prize for Pakistan in the subject of:

A Chemistry

B Physics ✓

C Biology

D Mathematics

✓ **Correct Answer: Option B — Physics**

EXPLANATION

Dr. Abdus Salam won the Nobel Prize in Physics in 1979 for his work on electroweak unification.

41 When was the Warsaw Pact signed?

A 1955



B 1956

C 1954

D None of these

✓ **Correct Answer: Option A — 1955**

EXPLANATION

The Warsaw Pact was signed on 14 May 1955 by the Soviet Union and its Eastern European allies.

42 In the Shanghai Cooperation Organization, what is/was the status of Pakistan?

☐ A Full member

☒ B Observer ✓

☐ C Dialogue member

☐ D None of these

✓ **Correct Answer: Option B — Observer**

EXPLANATION

As of this paper's date (January 2017), Pakistan held Observer status in the SCO; it was only elevated to full membership in June 2017.

43 When was the Shanghai Cooperation Organization founded?

A 1915

B 1910

C 1966

D None of these



✓ **Correct Answer: Option D — None of these**

EXPLANATION

The SCO was actually founded in 2001 in Shanghai — a year not represented by any of the given options, so the correct choice is “None of these.”

44 The current US President belongs to which party?

A Republican Party ✓

B Democratic Party

C Independent

D None of these

✓ **Correct Answer: Option A — Republican Party**

EXPLANATION

Donald Trump, the Republican Party's nominee, took office as the 45th US President on 20 January 2017.

45 Donald Trump is a native of the state of:

A California

B New York ✓

C Virginia

D None of these

✓ **Correct Answer: Option B — New York**

EXPLANATION

Donald Trump was born in Queens, New York City, New York.

46 On which day of November in a Leap year are US presidential elections held?

A Tuesday ✓

B Monday

C Sunday

D None of these

✓ **Correct Answer: Option A — Tuesday**

EXPLANATION

US federal law fixes presidential elections on the Tuesday after the first Monday in November.

47 Which country is a member of BRICS?

A Pakistan

B India

C China

D Both India and China ✓

✓ **Correct Answer: Option D — Both India and China**

EXPLANATION

BRICS comprises Brazil, Russia, India, China and South Africa — so both India and China are members.

48 Where was the last summit of BRICS held (as of this paper)?

A Burma

B China

C Cyprus

D India ✓

✓ **Correct Answer: Option D — India**

EXPLANATION

The 8th BRICS Summit was held in Goa, India, in October 2016.

49 On which day of November in a Leap year are US presidential elections conducted?

A Tuesday ✓

B Monday

C Sunday

D None of these

✓ **Correct Answer: Option A — Tuesday**

EXPLANATION

Same rule as above — the Tuesday following the first Monday of November.

50 The Lowari Pass connects Peshawar (Chitral region) with:

A Chitral



B Gilgit

C Swat

D Hunza

✓ **Correct Answer: Option A — Chitral**

EXPLANATION

The Lowari Pass/Tunnel links Chitral with Dir, giving Chitral its main road connection to the rest of the country via Peshawar.

51 Neelum Valley is in:

A Swat

B Gilgit

C Azad Kashmir ✓

D Hunza

✓ **Correct Answer: Option C — Azad Kashmir**

EXPLANATION

The Neelum Valley is located in Azad Jammu and Kashmir.

52 Mr. Raza Rabbani is/was:

A Leader of Opposition in National Assembly

B Chairman Senate ✓

C Deputy Speaker National Assembly

D Speaker Sindh Assembly

✓ **Correct Answer: Option B — Chairman Senate**

EXPLANATION

Mian Raza Rabbani served as Chairman of the Senate of Pakistan from 2015 to 2018.

53 The 2016 Olympics were held in:

A France

B America

C China

D Brazil ✓

✓ **Correct Answer: Option D — Brazil**

EXPLANATION

The 2016 Summer Olympics were hosted by Rio de Janeiro, Brazil.

54 'Big Apple' is the nickname of:

A London

B New York ✓

C Beirut

D Tokyo

✓ **Correct Answer: Option B — New York**

EXPLANATION

"The Big Apple" is a famous nickname for New York City.

55 The capital of Yemen is:

A Sana'a



B Aden

C Beirut

D Amman

✓ **Correct Answer: Option A — Sana'a**

EXPLANATION

Sana'a is the constitutional capital of Yemen.

56 Bashar al-Assad is the President of:

A Iraq

B Syria ✓

C Yemen

D Lebanon

✓ **Correct Answer: Option B — Syria**

EXPLANATION

Bashar al-Assad has been President of Syria since 2000.

57 The International Criminal Police Organization is known as:

A CIA

B MIB

C ISI

D Interpol



✓ **Correct Answer: Option D — Interpol**

EXPLANATION

The International Criminal Police Organization is commonly known as Interpol.

58 The famous footballer Lionel Messi belongs to:

A Spain

B Italy

C Argentina ✓

D France

✓ **Correct Answer: Option C — Argentina**

EXPLANATION

Lionel Messi is an Argentine footballer, though he has played club football in Spain.

59 The International Court of Justice has its headquarters in:

A Geneva

B The Hague ✓

C New York

D London

✓ **Correct Answer: Option B — The Hague**

EXPLANATION

The ICJ is headquartered at the Peace Palace in The Hague, Netherlands.

60 International Human Rights Day is celebrated on:

A 10 November

B 10 October

C 10 December ✓

D None of these

✓ **Correct Answer: Option C — 10 December**

EXPLANATION

Human Rights Day is observed annually on 10 December, marking the UN's adoption of the Universal Declaration of Human Rights in 1948.

61 MI-5 is the intelligence agency of:

A United States

B United Kingdom ✓

C Israel

D France

✓ **Correct Answer: Option B — United Kingdom**

EXPLANATION

MI5 (the Security Service) is the United Kingdom's domestic counter-intelligence agency.

62 Taksim Square is in:

A Cairo

B Istanbul ✓

C Dammam

D Beirut

✓ **Correct Answer: Option B — Istanbul**

EXPLANATION

Taksim Square is a major public square in Istanbul, Turkey.

63 Anything which is prohibited by law is called:

A Irregular

B Immoral

C Illegal ✓

D Unreliable

✓ **Correct Answer: Option C — Illegal**

EXPLANATION

Something forbidden by law is termed “illegal.”

64 Al Jazeera TV channel belongs to:

A Qatar ✓

B Kuwait

C Egypt

D Bahrain

✓ **Correct Answer: Option A — Qatar**

EXPLANATION

Al Jazeera is a state-funded broadcaster headquartered in Doha, Qatar.

65 NATO is a/an ___ alliance.

A Regional

B Economic

C Military ✓

D Political

✓ **Correct Answer: Option C — Military**

EXPLANATION

NATO (North Atlantic Treaty Organization) is fundamentally a collective military/defence alliance.

66 The UN was founded in:

A 1944

B 1945 ✓

C 1946

D 1947

✓ **Correct Answer: Option B — 1945**

EXPLANATION

The United Nations was officially established on 24 October 1945.

SECTION

Islamic Studies

Questions 67 – 67

67 The system of jail was introduced by:

- ☐ A Hazrat Usman Ghani (RA)
- ☐ B Hazrat Abu Bakar Siddique (RA)
- ☒ C Hazrat Umar Farooq (RA) ✓
- ☐ D Hazrat Ali Murtaza (RA)

✓ **Correct Answer: Option C — Hazrat Umar Farooq (RA)**

EXPLANATION

Hazrat Umar (RA), the second Caliph, is credited with establishing the first formal system of prisons in Islamic administration.

SECTION

General Science

Questions 68 – 80

68 At night, plants and trees release:

- ☐ A Oxygen
- ☐ B Carbon monoxide
- ☒ C Carbon dioxide ✓
- ☐ D None of these

✓ **Correct Answer: Option C — Carbon dioxide**

EXPLANATION

Without sunlight, photosynthesis stops and only respiration continues, so at night plants release carbon dioxide.

69 Acid is neutralized by:

A Alkali ✓

B Salt

C Chloride

D None of these

✓ **Correct Answer: Option A — Alkali**

EXPLANATION

An acid is neutralized by a base/alkali, producing salt and water.

70 In the human body, the red blood cells:

A Carry oxygen ✓

B Fight against infections

C Help in digestion

D None of these

✓ **Correct Answer: Option A — Carry oxygen**

EXPLANATION

Red blood cells (erythrocytes) transport oxygen throughout the body via haemoglobin. (Fighting infection is the job of white blood cells.)

71 Which gas is used in balloons?

A Oxygen

B Helium ✓

C Hydrogen

D None of these

✓ **Correct Answer: Option B — Helium**

EXPLANATION

Helium is the standard gas used to fill balloons, being lighter than air and non-flammable, unlike hydrogen.

72 The process in which leaves absorb sunlight and use the energy to synthesize carbohydrate from water and air is called:

A Oxygenation

B Photosynthesis ✓

C Hybrid regeneration

D None of these

✓ **Correct Answer: Option B — Photosynthesis**

EXPLANATION

This is the definition of photosynthesis.

73 What is a peanut, botanically?

A Leaf

B Stem

C Rose

D None of these



✓ **Correct Answer: Option D — None of these**

EXPLANATION

A peanut is neither a leaf, stem, nor a rose — botanically it is a legume/seed pod, so “None of these” is correct.

74 The Law of Gravity was given by:

A Newton ✓

B Dalton

C Einstein

D None of these

✓ **Correct Answer: Option A — Newton**

EXPLANATION

Sir Isaac Newton formulated the Law of Universal Gravitation.

75 The weather on earth changes mainly because of the earth's:

A Revolution around the sun ✓

B Rotation on its axis

C Both (a) & (b)

D None of these

✓ **Correct Answer: Option A — Revolution around the sun**

EXPLANATION

Seasonal weather patterns are caused by the earth's year-long revolution around the sun combined with its axial tilt (day/night instead results from the earth's rotation on its axis).

76 Cultivation of rice needs:**A** Plenty of water ✓**B** Low quantity of water**C** Medium level of water**D** None of these✓ **Correct Answer: Option A — Plenty of water****EXPLANATION**

Rice is typically grown in flooded paddies and requires an abundant, continuous water supply.

77 Wheat in Punjab is reaped in the month of:

A June

B July

C May ✓

D None of these

✓ **Correct Answer: Option C — May**

EXPLANATION

In Punjab, the wheat crop is typically harvested in April-May.

78 At the peaks of high mountains, the boiling temperature of water:

A Increases

B Decreases ✓

C Does not change

D None

✓ **Correct Answer: Option B — Decreases**

EXPLANATION

Atmospheric pressure is lower at higher altitudes, which lowers the boiling point of water.

79 What is HCl?

A An Alkali base

B Acid ✓

C Neutral

D None

✓ **Correct Answer: Option B — Acid**

EXPLANATION

HCl (Hydrochloric acid) is a strong acid.

80 Who gave the idea of the Law of Inertia?

A Dalton

B Newton ✓

C Michael (Faraday)

D None

✓ **Correct Answer: Option B — Newton**

EXPLANATION

Newton's First Law of Motion is also known as the Law of Inertia.

SECTION

Mathematics

Questions 81 – 100

81 A long rope has to be cut into exactly 23 small pieces. If it is doubled (folded in half) to start with, how many times does it need to be cut?

A 9

B 23

C 11 ✓

D None

✓ **Correct Answer: Option C — 11**

EXPLANATION

For a rope folded double, each cut through both layers adds 2 pieces: $\text{pieces} = 2 \times (\text{cuts}) + 1$.
Setting $2n + 1 = 23$ gives $n = 11$ cuts.

82 In the first over of a cricket game, the run rate was only 3.2. What should the run rate be in the remaining 40 overs to reach a target of 282 runs?

A 6.25

B 6.5

C 6.75

D 7



✓ **Correct Answer: Option D — 7**

EXPLANATION

Runs already scored = 3.2. Runs still needed = $282 - 3.2 = 278.8$ in 40 overs $\rightarrow 278.8/40 \approx 6.97$, which rounds to the closest option, 7.

83 A bank offers 5% compound interest calculated half-yearly. A depositor deposits Rs.1600 each on 1 January and 1 July of a year. At the end of the year, how much interest would he have gained?

A Rs.120

B Rs.121 ✓

C Rs.122

D Rs.123

✓ **Correct Answer: Option B — Rs.121**

EXPLANATION

Half-yearly rate = 2.5%. First deposit compounds twice: $1600 \times 1.025^2 = 1681$. Second deposit compounds once: $1600 \times 1.025 = 1640$. Total = 3321; interest = $3321 - 3200 = \text{Rs.121}$.

84 A train 360 m long is running at a speed of 45 km/h. In what time will it pass a bridge 140 m long?

A 40 sec



B 42 sec

C 45 sec

D None

Correct Answer: Option A — 40 sec

EXPLANATION

Total distance = $360 + 140 = 500$ m. Speed = $45 \text{ km/h} = 12.5 \text{ m/s}$. Time = $500 / 12.5 = 40$ seconds.

85 The sum of the ages of 4 children born at an interval of 3 years each is 50 years. What is the age of the youngest child?

A 4 years

B 8 years ✓

C 10 years

D None

✓ **Correct Answer: Option B — 8 years**

EXPLANATION

Let ages be $x, x+3, x+6, x+9$. $\text{Sum} = 4x+18 = 50 \rightarrow x = 8$.

86 The sum of the squares of two numbers is 138, while the sum of their product taken two at a time is 131. What is their sum?

A 20



B 30

C 40

D None

Correct Answer: Option A — 20

EXPLANATION

$(\text{Sum})^2 = \text{sum of squares} + 2 \times (\text{sum of products}) = 138 + 262 = 400 \rightarrow \text{Sum} = \sqrt{400} = 20.$

87 In an election between two candidates, one got 55% of the total valid votes. 20% of the total votes were invalid. If the total number of votes was 7500, how many valid votes did the other candidate get?

A 2700 ✓

B 2900

C 3000

D None

✓ **Correct Answer: Option A — 2700**

EXPLANATION

Invalid votes = 20% of 7500 = 1500, so valid votes = 6000. The other candidate got 45% of 6000 = 2700.

88 A man took a loan from a bank at 12% per annum simple interest. After 3 years he had to pay Rs.5400 as interest. What was the principal amount borrowed?

A 2000

B 10000

C 15000 ✓

D 20000

✓ **Correct Answer: Option C — 15000**

EXPLANATION

$$SI = P \times R \times T / 100 \rightarrow 5400 = P \times 12 \times 3 / 100 \rightarrow P = 5400 \times 100 / 36 = \text{Rs.}15000.$$

89 A sum of money is to be distributed among A, B, C, D in the proportion 5:2:4:3. If C gets Rs.1000 more than D, what is B's share?

A 500

B 1500

C 2000 ✓

D 5000

✓ **Correct Answer: Option C — 2000**

EXPLANATION

C-D = 1 part = Rs.1000, so 1 part = Rs.1000. B's share = 2 parts = Rs.2000.

90 An automobile finance company claims to lend at simple interest but compounds the interest every six months. If the stated rate is 10%, what is the effective rate of interest?

A 10%

B 10.25% ✓

C 10.5%

D None

✓ **Correct Answer: Option B — 10.25%**

EXPLANATION

10% p.a. compounded half-yearly = 5% every 6 months. Effective rate = $(1.05)^2 - 1 = 0.1025$
= 10.25%.

91 The sum of the digits of a two-digit number is 15, and the difference between the digits is 3. What is the two-digit number?

A 69

B 78

C 96

D Cannot be determined



✓ **Correct Answer: Option D — Cannot be determined**

EXPLANATION

Both 96 ($9+6=15$, $9-6=3$) and 69 ($6+9=15$, $9-6=3$) satisfy the conditions, so the number cannot be uniquely determined from the given information.

92 An office has a staff of 6 people. A certain project takes 24 hours (working at the regular rate) to complete. How many additional workers must be employed to complete the job in 8 hours?

A 18

B 6

C 12 ✓

D 10

✓ **Correct Answer: Option C — 12**

EXPLANATION

Total work = $6 \times 24 = 144$ man-hours. Workers needed for 8 hours = $144/8 = 18$. Additional workers needed = $18 - 6 = 12$.

93 A train running at a speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?

A 120 m

B 180 m

C 324 m

D 150 m ✓

✓ **Correct Answer: Option D — 150 m**

EXPLANATION

Speed = 60 km/h = 16.67 m/s. Length = speed $\times$ time = $16.67 \times 9 \approx 150$ m.

94 If one-third of one-fourth of a number is 15, then three-tenths of that number is:

A 35

B 36

C 45

D 54



✓ Correct Answer: Option D — 54

EXPLANATION

$(1/3) \times (1/4) \times N = 15 \rightarrow N = 180$. Three-tenths of 180 = 54.

95 A is two years older than B, who is twice as old as C. If the total of the ages of A, B and C is 27, how old is B?

A 7

B 8

C 9

D 10



✓ Correct Answer: Option D — 10

EXPLANATION

Let $C = x$, $B = 2x$, $A = 2x+2$. Sum: $5x+2 = 27 \rightarrow x = 5 \rightarrow B = 2x = 10$.

96 Find a positive number which, when increased by 17, is equal to 60 times the reciprocal of the number.

A 15

B 8

C 3 ✓

D None

✓ **Correct Answer: Option C — 3**

EXPLANATION

$n + 17 = 60/n \rightarrow n^2 + 17n - 60 = 0 \rightarrow (n-15)(n+4) = 0$ solving gives $n = 3$ as the positive root.

97 Two numbers differ by 5. If their product is 336, what is the sum of the two numbers?

A 33

B 34

C 36

D 37



✓ Correct Answer: Option D — 37

EXPLANATION

Let numbers be x and $x+5$: $x(x+5) = 336 \rightarrow x^2+5x-336=0 \rightarrow x=16$, so the numbers are 16 and 21; their sum is 37.

98 If 15 workers can paint a certain number of houses in 24 days, how many days will 40 workers take working at the same rate to do the same job?

A 12 days

B 18 days

C 15 days

D 9 days ✓

✓ **Correct Answer: Option D — 9 days**

EXPLANATION

Total work = $15 \times 24 = 360$ worker-days. Days needed for 40 workers = $360/40 = 9$ days.

99 Jafer drew a square, then erased it and drew a second square whose sides were 3 times the sides of the first. By what percent was the area of the square increased?

A 600%

B 700%

C 800% ✓

D 900%

✓ **Correct Answer: Option C — 800%**

EXPLANATION

If the side is tripled, the area becomes $3^2 = 9$ times the original, i.e. an increase of $(9-1) \times 100\% = 800\%$.

100 Find the number: if 50 is subtracted from two-thirds of the number, the result equals the sum of 40 and one-fourth of that number.

A 214

B 216 ✓

C 114

D 116

✓ **Correct Answer: Option B — 216**

EXPLANATION

$$(2/3)N - 50 = 40 + (1/4)N \rightarrow (5/12)N = 90 \rightarrow N = 216.$$