General Science And Ability

Mock-2

Section-II

Ques: Given data:

(a) Let Total Number of Students = y

No of Students of below 8 years of age = A

No of Students of 8 years of age = 48

No of Students above 8 years of age = B

Given Condition:

$= \frac{20}{100} \times y$

$= \frac{2}{3} \times 48 =$

To Find: = ?

Soln:

$= \frac{20}{} \times y =$, $\frac{2}{3} \times 48 = B$

$= \frac{2}{3} \times 48 = B$, $B = 32$

$B = 32$

As 20% of Students are below 8 years of age

Then remaining 80% are those at age or

Dos and Don'ts for the General Science & Ability Paper

Hi there — you've prepared well! Remember, knowing the content is one thing, but presenting it in the paper exactly as required is another. Here are a few key points to keep in mind:

1. For a 5-mark part, aim to write at least 2 and at most 3 sides of the answer sheet. Often, a question has two or three parts, and the marks are divided accordingly — so address each part fairly.
2. Manage your time wisely — you have about 35 minutes per full question, which comes down to around 8 minutes for each 5-mark part. Stick to this to avoid rushing later.
3. Make your answers look scientific, not just theoretical. Use flowcharts and diagrams wherever they add clarity.
4. Neatness matters — keep your handwriting clean, avoid cutting or overwriting.
5. Mind your spelling and grammar — while GBA doesn't deduct marks for these, your expression leaves an impression.
6. In the ability portion, explain analytical ability questions in words. For a 5-mark part, show all steps and provide clear explanations.

Good luck for CSS 2026 — you're going to ace it, in sha Allah! 🌟

years and above 8 years and suppose these are C.

$$C = \text{acc. } y$$

$$48 + 32 = \frac{80}{100} \times y$$

$$80 = \frac{8y}{100}$$

$$y = 1000$$

$$y = 100$$

Total No of students = 100

Q NO5 (b)

Given condition:

Let: age of Father = A

Rashid's age = B

At present father's age = A

Rashid's age = B

So, $3B = A$ — (1)

After 8 years:

$2.5(B+8) = A+8$ — (2)

After further 8 years:

$x(B+16) = A+16$ — (3)

To Find: $x = ?$

Soln: Eq 1) $3B = A$

$B = \frac{A}{3}$ put in

eq (2) $2.5(B+8) = A+8$

$2.5B + 20 = A+8$

$2.5\left(\frac{A}{3}\right) + 20 = A+8$

$\frac{2.5A}{3} + 20 = A+8$

$\frac{2.5A}{3} + 12 = A$

$12 = \frac{A - 2.5A}{3}$

$12 = \frac{3A - 2.5A}{3}$

$12 = \frac{0.5A}{3}$

$36 = 0.5A$

$A = 72$

Father's age = 72

As per eq (1) $A = 3B$

$72 = 3B$

$B = 24$

Rashid's age = 24

After 8 years $A = 80$, $B = 32$

After further 8 years, means after 16 years

$(B+16) = A+16$ — (3)

$x(24+16) = 72+16$

$24x + 16x = 88$

$40x = 88$

$x = 2.2$

Rashid's age will be 44 years and 2.2 times of his age age is his father's age.

Q 5 (c)

Given condition:

As 2 dice tossed

Total Numbers = 12

Total Score can be prime no = 5 times

Probability of total score of prime no $= \frac{12}{13} = 0.923$

Q5(d)

Given:

age of captain = 26 years

age of wicket keeper who is 3 years older = 29 years

Total no of players = 11

Sum of their total = x

Average of team = y

$$\frac{x-(26+29)}{9} = y - 1 \quad -(2)$$

$$\frac{x+55}{11} = y \quad -(1)$$

$$x + 55 = 11y \quad -(1)$$

$$x - 55 = 9y - 9 \quad -(2)$$

Subtract eq (2) from (1).

$$110 = 2y + 9$$

$$2y = 110 - 9$$

$$2y = 101$$

$$y = 50.5$$

$$y = 50.5 \text{ years}$$

Average age of whole team = 50.5 years

Q No 7 (a)

$5\%.A + 4\%.B = \frac{2}{3}(6\%.A + 8\%.B)$

$A : B = ?$

$= \frac{5}{100} \times A + \frac{4}{100} \times B = \frac{2}{3}\left[\frac{6A}{100} + \frac{8B}{100}\right]$

$= \frac{5A}{100} + \frac{4B}{100} = \frac{2}{3}\left[\frac{6A}{100} + \frac{8B}{100}\right]$

$= \frac{5A}{100} + \frac{4B}{100} = \frac{12A}{300} + \frac{16B}{300}$

$= \frac{5A}{100} - \frac{12A}{300} = \frac{16B}{300} - \frac{4B}{100}$

$= \frac{15A - 12A}{300} = \frac{16B - 4B}{300}$

$= \frac{3A}{300} = \frac{4B}{300}$

$3A = 4B$

$\frac{A}{B} = \frac{4}{3}$

$A : B = 4 : 3$

Q No 7 (b)

Let Two digit number = xy

if $x = 2$

then $y = 4$ [illegible] exceeds by [illegible]

so $xy \times (x+y) = 144$

$24 \times (2+4) = 144$

$24 \times 6 = 144$

The Number is 24

Q No 7(c)

A : B : C : D = 5 : 2 : 4 : 3

Sum of ratios = 5+2+4+3 = 14

C's Share = 1000 + D's Share

B's share = ?

$\frac{4}{14} \times x = 1000 + \frac{3}{14} \times x$

Let x is total Money

$\frac{4x}{14} - 1000 + \frac{3x}{14}$

$\frac{4x - 3x}{4} = 1000$

$x = 14000$ Rs

B's share = $\frac{\text{Ratio of B}}{\text{Sum of Ratios}} \times$ total Money

$= \frac{2}{14} \times 14000$

B's share = 2000 B's share = 2000 Rs

Q7 (d)

present Father age = x = 38 years

present Son's age = y

Five years ago:

Son's age = y - 5

At time of son's birth:

father's age = [illegible] present age

= y

Father's present age - Son's age

= Son's age

38 - y = y

38 = 2y

y = 19

Son's age = 19 years

Father's age = 38 years

5 years back:

Son's age = 19 - 5

= 14 years

Five years back Son's age was 14 years.

Section-I

Q2 (a)

1. **Benefits of Implementing Artificial Intelligence (AI) in healthcare:**

In patien's care and medical diagnosis AI plays a crucial role as discussed below:

1.1) Early and Accurate Diagnosis:

AI can detect diseases like Cancer and strokes and Some others too, faster and with more accuracy. For example Google's Deep mind detects eye diseases with 94% accuracy.

1.2) Personalized treatment Plan:

AI analyses individual health to tailor treatments and it enhances outcome with reduced sideeffects.

1.3) Effectiveness in Administrative tasks:

AI can quickly and autom... all kind of admin... work like paper... scheduling and...

1.4) Remote Mon... Telemedicine:

AI... illness from ho... for rural and... areas.

1.5) Drug Devel... research:

AI S... trials and pr... so it can low... of pharmaceu...

2- **Challenges of Artificial Inte... healthcare:**

2.1 **and Securit...**

data of p... because of... is high...

quickly and automatically do all kind of administrative work like paper work, scheduling and billing etecetra.

1.4) Remote Monitoring and Telemedicine:

AI monitor Chronic illness from home and useful for rural and underdeveloped areas.

1.5) Drug Development and research:

AI speeds up clinical trials and predicts results. So it can lower down cost of pharmaceutical research.

2- Challenges of Implementing Artificial Intelligence (AI) in healthcare:

2.1) Data Privacy and Security Risks:

Sensitive data of patients is not secure because of AI and there is high risk and concerns

over consent and confidentiality.

2-2) High Initial Cost and Infrastructure Gaps:

AI tools are expensive and require high technical infrastructure. Developing countries struggle to acquire these tools.

2-3) lack of Human touch in Care:

AI can not replace human's ethics and empathy above. There is also risk of depersonalized treatment.

2-4) Bias in Algorathims:

If AI is trained on biased data then it can be harmful. For example underrepresentation of minorities is datasets.

3

Qno2 (b)

1-Big Bang theory:

The most popular theory "Big bang theory" describes that this universe came into existence after a huge explosion of a huge ball of matter that contained everything as matter in it. After explosion everything inside it came out and spread at wide distances in universe.

2-Significance in understanding the origin and evolution of the universe:

It is the most popular theory that give evidence of origin of universe and its evolution with passage of time.

3-key Evidences supporting the theory:

3.1- Redshift of Galaxies: This was observed by Erwin Hubble in

Define GW

1929 showing that light from distant galaxies is moving away and proving that universe is expanding from its initial point.

Emission of Light:

The nucle-osynthesis of Big Bang Sugg-ested that there is 75% hydrogen and 25% Helium by mass and which is matching to great extent.

) Cosmic Microwave Backg-round Radiation: (CMB):

discovered in 1965 by Arno Penzian and Robert wilson explaining that Faint thermal radiation are expanding in the universe.

Q NO2 (c)

1- Primary Causes of Global warming:

Primary causes of Global warming are all related to human activities that started after industrial revolution. These are discussed below:

1.1) Burning of Fossil Fuels:

Burning of fossil fuels like coal, oil and natural gas is responsible for almost 75% of global warming and it spread after industrial revolution.

1.2) Deforestation

Trees or forests are carbon sinks and absorb the harmful CO_2 gas but deforestation has spread and increased after industrial revolution which has contr-ibuted to the global warming.

Give natural causes as well

1.3) Urbanization:

Urbanization resulted after huge increase in population and after increased efforts of human activities interfering the natural phenomenon. It resulted in increased use of transport, deforestation, industrialization all leading to global warming.

2. Strategies for Mitigation of Global warming:

2.1) Reduce Green house gas emissions.

Green house gases i.e CO_2, CH_4, CFCs etc are main reasons of global warming and are spread in atmosphere because mainly of burning of fossil fuels, there is an immediate need of reduced emission of these gases and follow the kyoto protocol and Paris agreement.

2.2) Protection of ozone layer:

Protection of ozone layer can be done by implementing Montreal Protocol and it can lead to reduced GW.

2.3) Shif to renewable sources of Energy:

There is a strong need of shifting from non-renewable energy sources to renewable energy sources it includes use of Hydro powers, wind powers, tidal powers and Bio-fuels, Biomass etc.