

# OSSTET

**Previous Year Paper  
(Science - CBZ)  
22 Jan, 2020**

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The candidates are required to answer all the Sections in the OMR Answer Sheet.

This Booklet is to be taken away by the candidates after examination is over and the OMR Answer Sheet to be handed over to the Invigilator(s) concerned.

**THIS BOOKLET CONTAINS FOUR SECTIONS  
( SECTION - I TO IV )**

SECTIONS	SUBJECTS	NO. OF QUESTIONS	FULL MARKS
A : Section-I	Odia (Compulsory for all Streams)	1-20=20	20
A : Section-II	English (Compulsory for all Streams)	21-40=20	20
B : Section-III	Optional (any one group/subject to be chosen) Arts : Odia + English + History & Political Science + Geography & Economics	41-100=60	60
	Science (PCM) : Physics + Chemistry + Mathematics	41-100=60	60
	Science (CBZ) : Chemistry + Botany + Zoology	41-100=60	60
	Classical Sanskrit	41-100=60	60
	Urdu	41-100=60	60
	Telugu	41-100=60	60
	Hindi	41-100=60	60
C : Section-IV	Compulsory for all streams : Child Development, Pedagogy, School Management & Evaluation	101-150=50	50

ଶ୍ରୀମତୀ ଅଭ୍ୟାସ ପାତା :

ଅନେକ ପାଶ୍ଚାତ୍ୟ ସମାଲୋଚକ ଭାରତୀୟମାନଙ୍କର ରଚନା, ଗବେଷଣା ଓ ସାମାଜିକ ଆୟୋଜନରେ ମୌଳିକତାର ଏକାନ୍ତ ଅଭାବ ଲକ୍ଷ୍ୟକରି ଆଶେପ କରିଥାନ୍ତି । ଯେଉଁଠି ବ୍ୟକ୍ତି ଓ ସମାଜର ସକଳ ଦୈନିକିନ କର୍ମ ଓ ଚିନ୍ତାଧାରାକୁ ପରମ୍ପରାହିଁ ନିୟନ୍ତ୍ରଣ କରେ, ସେଠି ମୌଳିକତାର ବିକାଶ ସହଜ ନୁହେଁ । ସେଠାରେ ଗତାନୁଗତିକତାହିଁ ସାଧାରଣ ଦୃଶ୍ୟ ହେବାର କଥା । ଭାରତବର୍ଷରେ ଅନେକାଂଶରେ ତାହାହିଁ ଘଟିଛି । ବିଶ୍ୱ ସଂସ୍କୃତିକୁ ଭାରତର ଧର୍ମ, ସାହିତ୍ୟ, କଳା ଓ ଦର୍ଶନ ଦେଇ ଅଭୁଲନୀୟ ଦାନ ଥିଲେହେଁ, ମନୁଷ୍ୟର ପାର୍ଥବ ଜୀବନକୁ ସୁଖ ସ୍ବାହ୍ୟମାୟ କରିବା ପାଇଁ ଅନ୍ୟ ଜାତିମାନଙ୍କ ଭୁଲନାରେ ଭାରତର ଦାନ ସାମାନ୍ୟ । ସକାଳୁ ଉଠି ରାତିରେ ଶୋଇବାକୁ ଗଲାଯାଏଁ ଆମର ଦୈନିକିନ ଜୀବନ ସମ୍ପୂର୍ଣ୍ଣ ଭିନ୍ନଭିନ୍ନ ଦ୍ରବ୍ୟର ଆଲୋଚନା କଲେ ଏହା ସମ୍ପୂର୍ଣ୍ଣ ହୋଇ ଉଠିବ । ସାନିଶାରୀ ଲାଟିନ୍, ଟାପଜଳ, ଦୈନିକ କାଗଜ, ମୁଦ୍ରାୟନ୍ତ୍ର, ଟା' ବା କଟି ଓ ଚାଲନା ଶିନା ଥାଳିଆ, ରିକ୍ସା ବା ମୋଟର, ରେଲଗାଡ଼ି, ଏଗୋପ୍ଲେନ୍, ରଲେଟ୍ରିକ୍ ପଞ୍ଜା ଓ ଆଲୁଅ ପୁଣି ଡ୍ରାଇ ଓ ଘଣ୍ଟା କହନ୍ତି; ଏଥରୁ କେଉଁଠି ଭାରତବର୍ଷର ନିଜସ୍ତ ଉଭାବନ ? ଆମେ ଆମ ସଭ୍ୟତା ଓ ସଂସ୍କୃତି ନାମରେ ଲଙ୍ଘ-ଝମ୍ପ ଦେଇପାରୁ କିନ୍ତୁ ଯେଉଁ ସଂସ୍କୃତିର ଏତିହ୍ୟ ଆମର ବର୍ତ୍ତମାନକୁ ସୁନ୍ଦର ଓ ସୁଛଦ କରିବାକୁ ଶିଖାଏନା ବା ସାହାଯ୍ୟ କରେନା କେବଳ ନୁହେଁ, ତାହା ସଭ୍ୟ ମନୁଷ୍ୟର ଏକ କର୍ତ୍ତବ୍ୟ ବୋଲି ମଧ୍ୟ କେବେହେଲେ ପ୍ରେରଣା ଦେଇନି, ସମସାମ୍ଯିକ ପ୍ରୟୋଜନ ଦୃଷ୍ଟିରୁ ତାହାର ମୂଲ୍ୟ ଜମିଯିବାର କଥା ।

(B) ଅଭୀତ ଏତିହ୍ୟ

(C) ପରମ୍ପରା

(D) ଗତାନୁଗତିକତା

2. ବିଶ୍ୱ ସଂସ୍କୃତିକୁ କ'ଣ ଭାରତର ଦାନ ନୁହେଁ ?

(A) ଧର୍ମ

(B) ଦର୍ଶନ

(C) କଳା

(D) ପାର୍ଥବ ସୁଖ ପ୍ରଦାନକାରୀ ବସ୍ତୁ

3. ଆମ ସଂସ୍କୃତିର ଏତିହ୍ୟ କିପରି ?

(A) ଯୁଗୋପ୍ୟୋଗୀ

(B) ଯୁଗୋପ୍ୟୋଗୀ ନୁହେଁ

(D) ପ୍ରଗତିଶୀଳ

4. ପାଶ୍ଚାତ୍ୟ ସମାଲୋଚକମାନେ ଭାରତୀୟମାନଙ୍କଠାରେ କାହାର ଅଭାବ ଲକ୍ଷ୍ୟ କରନ୍ତି ?

(A) ପାରମ୍ପରିକତାର

(B) ଗତାନୁଗତିକତାର

(C) ମୌଳିକତାର

(D) ଧାର୍ମିକତାର

(D) ନେଚକତା

6. ବୁଲସୀ ଦି' ପଡ଼ରୁ ବାସେ, ବିଲୁଆତି ଦି' ପଡ଼ରୁ କୁଣ୍ଡାଳ ହୁଏ । - ଏହା କେଉଁ ପ୍ରକାର ବାକ୍ୟ ?

(A) ✓ ଯୋଗିକ  
✗ (B) ଜଟିଳ  
(C) ସରଳ  
(D) ମିଶ୍ର

7. ସବୁଟି ମିଛା ହରି ନାମଟି ସତ । - ଏଥରେ 'ସବୁ' କେଉଁ ପଦ ?

(A) ବିଶେଷ୍ୟ ✓  
(B) ବିଶେଷଣ  
✗ (C) ପରିମାଣ

8. 'ନିରଥ୍କ' - ଏହା କେଉଁ ସମାସ ନିଷଳ ପଦ ?

✗ (A) ବହୁକ୍ରୀହି  
(B) କର୍ମଧାରୟ  
(C) ✓ ତତ୍ତ୍ଵଗୁରୁଷ  
(D) ଦ୍ଵିଗୁ

10. ନିମ୍ନୋକ୍ତ ଶବ୍ଦଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁ 'ଅ' ପ୍ରତ୍ୟେ  
✗ ଯୁକ୍ତ ?

(A) ✓ ଗବ୍ୟ  
(B) ଦେଇଦ୍ୟ  
(C) ✓ ବୈଦ୍ୟ  
(D) ସେନ୍ୟ

11. ଶୁଦ୍ଧ ଶବ୍ଦଟିକୁ ବାଛ :

✗ (A) ଚାକିରୀ  
(B) ଭରଷା  
(C) ଉପତ୍ୟାକା  
(D) ସାରଥ୍ ✗

12. ରୂପର ଯୋଗ୍ୟ - ସମସ୍ତ ପଦଟି କ'ଣ ?

(A) ଅପରୂପ  
✗ (B) ଅନୁରୂପ  
(C) ଯଥାରୂପ  
(D) ପ୍ରତିରୂପ

ହୁଏ ।

✓ (D) ଭିନ୍ନକମମାନଙ୍କୁ ସମ୍ମ କରିବାପାଇଁ ସରକାର ବନ୍ଦୁ  
ଯୋଜନାମାନ କରୁଛନ୍ତି ।

14. 'ରମଣୀୟ' ଶବ୍ଦଟି କେଉଁ କୃତ ପ୍ରତ୍ୟେ ଦ୍ୱାରା ଗଠିତ ?

✓ (A) ଯ  
(B) ଅନ୍ତିମ  
(C) ଶିଯ  
(D) -

15. ସତୀଙ୍କି ତମସା ଅଙ୍କରେ

ଘେନି ସ୍ନେହେ ଆଲିଙ୍ଗିଲା ତରଙ୍ଗ-କରେ ।

✓ - ଏଥରେ କେଉଁ ଅଳକାର ରହିଛି ?

(A) ରୂପକ  
(B) ଉପମା  
(C) ଶ୍ରେଷ୍ଠ  
(D) ଉତ୍ସ୍ରେଷ୍ଟା

16. ନିୟ ପ୍ରଦତ୍ତ ଶବ୍ଦଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁ ଶବ୍ଦରେ ସ୍ଵାଭାବିକ  
ଭାବେ 'ଶ' ରହିଛି ?

(A) ଶ୍ରବଣ  
(B) ମ୍ରିଯମାଣ  
(C) ନିର୍ଣ୍ଣୟ  
(D) ଲବଣ

(D) ତୃତୀୟା

18. ସରେ ରସେ ଷଟପଦ ସାରସୀ- ରସରେ

ବୁଲେ ସଦା ଲବେ ଛିର ନୋହି କା ପାଶରେ । - ଏଥିରେ  
କେଉଁ ଅଳକାର ପ୍ରଯୁକ୍ତି ?

✓ (A) ଉପମା  
(B) ଶ୍ରେଷ୍ଠ  
(C) ଅନୁପ୍ରାସ  
(D) ଉତ୍ସ୍ରେଷ୍ଟା

19. 'ଉଠିଆ ଖାଇବା' ରୂପିତ କେଉଁ ଅର୍ଥରେ ପ୍ରଚଳିତ ?

(A) ରାଗିବା  
✓ (B) ମାରଣା ଖାଇବା  
(C) ଉପରେ ପଡ଼ି କହିବା  
(D) ଉନ୍ନତି ଉପରେ ଉନ୍ନତି

20. ଚୋରଟି ପୋଲିସ୍ କର୍ତ୍ତକ ଧରାହେଲା । - ରେଖାଙ୍କିତ ପଦଟି  
କେଉଁ ପ୍ରକାର ଅବ୍ୟୟ ?

✓ (A) ହେତୁବୋଧକ  
(B) ଭାବ ବାଚକ  
(C) ନିଷ୍ପତ୍ତି ବୋଧକ  
(D) ବିଭିନ୍ନ ସୂଚକ

✓ (Fill in the blank with the correct alternative)

- (A) out
- (B) down ✓
- (C) off ✓
- (D) up ✓

22. It \_\_\_\_\_ since 8 O'clock in the morning.

✓ (Fill in the blank with the correct alternative)

- (A) ✓ is raining
- (B) had rained
- (C) has been raining ✓
- (D) rained

✓ 23. Which letter is silent in 'autumn' ?

- (A) m
- (B) n ✓
- (C) t
- (D) a

division.

✓ (Complete the sentence choosing the correct alternative)

- (A) will secure
- (B) will have secured
- (C) ✓ would have secured
- (D) ✓ would secure ✓

✓ 25. The Principal and Secretary \_\_\_\_\_ present at the meeting yesterday.

✓ (Fill in the blank choosing the correct alternative)

- (A) ✓ was
- (B) ✓ were
- (C) had
- (D) is ✓

✓ 26. The word 'debt' is pronounced as

- (B) /det/
- (C) ✓ /dait/
- (D) /debt/

(A)  in  
 (B)  by  
 (C)  on  
 (D)  with

28. The diet is \_\_\_\_\_ in calcium.  
 ↗ (Fill in the blank with the correct alternative)  
 (A)  deficient  
 (B)  deficiency  
 (C)  deficit  
 (D)  deficiently

29. They made her chairman of the committee.  
 ↗ \_\_\_\_\_ into

(A)  She is made chairman of the committee.  
 (B)  She was chairman made by the committee.  
 (C)  She was made chairman of the committee.  
 (D)  The chairman was made by them.

(B)  /pa:sd/  
 (C)  /pa:sst/  
 (D)  /pa:stt/

Read the passage given below and answer the questions that follow choosing the correct alternatives given.

"Eat the right amount of the right food at the right time" is a food rule for everybody. Those who follow it usually notice the benefit in greater physical and mental efficiency, and more stamina and vigour. They add years to their life as well as vitality to their years.

Our body is the most wonderful engine of all, because it builds and repairs itself. It needs fuel, lubricants and other materials which we call food or nutrition, and this food should consist of minerals, carbohydrates, vitamins, fats and proteins.

31. What is regarded as the most wonderful engine ?  
 ↗  
 (A) Our mind  
 (B)  Our body  
 (C) Our heart  
 (D) Our life

32. What is considered fuel or lubricant for the body?

- (A) Instructions of the expert
- (B) Body's rule
- (C) Body-building rules

33. What is considered fuel or lubricant for the body?

- (A) Stamina
- (B) Food
- (C) Rule
- (D) Efficiency

34. The food rule is that one has to eat the right amount of the right food at \_\_\_\_\_.

- (A) all times
- (B) night
- (C) lunch
- (D) the right time

- (B) deficient
- (C) inefficiency
- (D) unefficiency

Read the poem care questions that follow choosing correct alternatives.

Though beautiful and gay

Will shortly fade away

The mountains looming high

That seem to kiss the sky,

Will some day crumbled lie.

The rolling oceans wide,

One thinks will e'er abide

Will once be emptied, dried.

The earth so firm and vast,

Today that rolls so fast,

Will cease to be at last.

Will one day lose its light.

Then midst thy grief be gay,

(B) They will lie crumbled.

(C) They will be emptied.

(D)  They will kiss the sky.

**1043811**

36. Whi pti

(A) The mountains  
(B) The earth  
(C) The rose  
(D)  The oceans

37. The expression 'That' used in the last line of the poem refers to \_\_\_\_\_.

(A) beauty  
(B)  grief  
(C) the rose  
(D) the mountains

39. The final message of the poet is that everything \_\_\_\_\_.

(A)  will pass away  
(B) is godly  
(C) is permanent  
(D) is unchangeable

40. The rose is described as \_\_\_\_\_.

(A) beautiful and grave  
(B) grave and gay  
(C) beautiful and bright  
(D)  beautiful and gay

41. Nitrogen gas is kept in a 1 litre flask under 100 kPa pressure and oxygen gas is kept in another 3 litre flask under 320 kPa pressure. If the two flasks are connected the resultant pressure of the mixture of gases will be :

(A) 310 kPa  
(B) 210 kPa  
(C) 365 kPa  
(D) 265 kPa

42. In a vessel 4 g of  $O_2$ , 4 g of  $H_2$ , 4 g of  $N_2$  and 4 g of  $Cl_2$  are present. The gas with highest pressure is

(A)  $O_2$   
(B)  $H_2$   
(C)  $N_2$   
(D)  $Cl_2$

43. Which of the following aqueous solution will have highest elevation of boiling point ?

(A) 1 M  $NaOH$   
(B) 1 M  $Na_2SO_4$   
(C) 1 M  $NH_4NO_3$   
(D) 1 M  $KNO_3$

44. When two ice cubes are pressed over each other, they unite to form one cube. Which of the force is responsible to hold them together ?

(A) Hydrogen bond formation  
(B) van der Waal's forces  
(C) Covalent attraction  
(D) Ionic interaction

1043811

In the reaction  $PCl_5(g) \rightleftharpoons PCl_3(g) + Cl_2(g)$ , the equilibrium concentration of  $PCl_5$  and  $PCl_3$  are 0.4 and 0.2 mole/litre respectively. If the value of  $K_c$  is 0.5, what is the concentration of  $Cl_2$  in mole/litre ?

(A) 2.0  
(B) 1.5  
(C) 1.0  
(D) 0.5

46. The shape of  $NH_3$  molecule and hybridisation of the central atom of  $NH_3$  molecule is :

(A) Linear and  $sp$   
(B) Trigonal planar and  $sp^2$   
(C) Pyramidal and  $sp^3$   
(D) Tetrahedral and  $sp^3$

(B)  $[\text{Ne}] 3s^2 3p^3$   
 (C)  $[\text{Ne}] 3s^2 3p^2$   
 (D)  $[\text{Ne}] 3s^2 3p^4$

48. At  $90^\circ\text{C}$ , pure water has  $[\text{H}_3\text{O}^+] = 10^{-6} \text{ M}$ . What is the value of  $K_w$  at this temperature ?  
 (A)  $10^{-6}$   
 (B)  $10^{-12}$   
 (C)  $10^{-13}$   
 (D)  $10^{-14}$

49. The quantum numbers  $n$  and  $l$  for four electrons are given below.  
 (i)  $n=4, l=1$   
 (ii)  $n=4, l=0$   
 (iii)  $n=3, l=2$   
 (iv)  $n=3, l=1$  **1043811**  
 The order of their energy from lowest to highest is :  
 (A) (iii) < (i) < (iv) < (ii)  
 (B) (i) < (ii) < (iii) < (iv)  
 (C) (ii) < (iv) < (i) < (iii)  
 (D) (iv) <

50. The oxidation number of sulphur in  $\text{S}_8$ ,  $\text{S}_2\text{F}_2$  and  $\text{H}_2\text{S}$  respectively are :  
 (A) +2, +1, -2  
 (B) -2, +1, -2  
 (C) 0, +1, +2  
 (D) 0, +1, -2

52. When copper pyrite is roasted in excess of air, a mixture of  $\text{CuO}$  and  $\text{FeO}$  is formed.  $\text{FeO}$  is present as impurity. This can be removed as slag during reduction of  $\text{CuO}$  to  $\text{Cu}$ . The flux that is added to form the slag is :  
 (A)  $\text{SiO}_2$ , which is an acidic flux  
 (B) Limestone, which is a basic flux  
 (C)  $\text{SiO}_2$ , which is a basic flux  
 (D)  $\text{CaO}$ , which is a basic flux

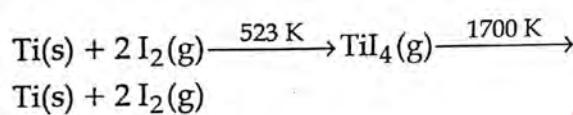
53. Find the concentration of  $\text{HCl}$  if 10 ml of 0.5 M  $\text{Ca}(\text{OH})_2$  solution is required to titrate 50 ml of  $\text{HCl}$  till the neutralization point.  
 (A) 5 M  
 (B)  $\frac{1}{10}$  M  
 (C)  $10^{-4}$  M  
 (D)  $\frac{1}{5}$  M

54. The de-Broglie wavelength of a particle of mass 0.001 kg and moving with velocity 100 m/s is given by :  
 (A)  $6.62 \times 10^{-34} \text{ m}$   
 (B)  $6.62 \times 10^{-33} \text{ m}$   
 (C)  $6.62 \times 10^{-35} \text{ m}$   
 (D)  $6.62 \times 10^{-32} \text{ m}$

(At. mass of Mg = 24, O = 16, C = 12)

(A) 22.4 litres  
 (B) 11.2 litres  
 (C) 1.12 litres  
 (D) 2.24 litres

56. Which method of purification is represented by the following equations?

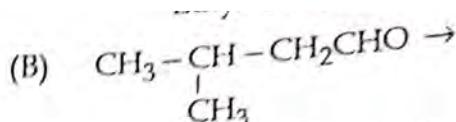


(A) Cupellation  
 (B) Poling  
 (C) Zone refining  
 (D) Van Arkel Method

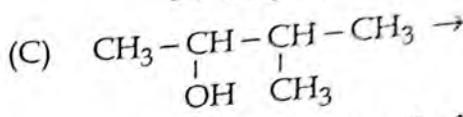
57. The order of decreasing stability of the following carbanions is :

(i)  $(\text{CH}_3)_3\text{C}^\ominus$   
 (ii)  $(\text{Cl})^\ominus$   
 (iii)  $\text{CH}_3\text{CH}_2^\ominus$   
 (iv)  $\text{C}_6\text{H}_5\text{CH}_2^\ominus$

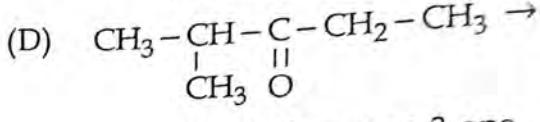
(A) (i) > (ii) > (iii) > (iv)  
 (B) (iv) > (iii) > (ii) > (i)  
 (C) (iv) > (ii) > (i) > (iii)  
 (D) (i) > (ii) > (iv) > (iii)



3-Methyl butanal



2-Methyl butan-3-ol

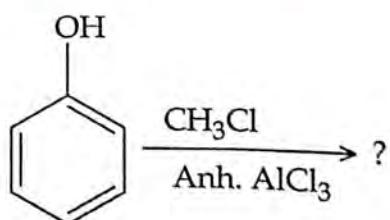


2-Methyl propan-3-one

59. Anti-Markownikoff's addition of HBr in presence of an organic peroxide is not observed in :

(A) Propene  
 (B) But-1-ene  
 (C) But-2-ene  
 (D) Pent-2-ene

60. What will be the product of the following reaction?



(A) m-hydroxy toluene  
 (B) m-chlorophenol  
 (C) o-chlorophenol and p-chlorophenol  
 (D) o-hydroxy toluene and p-hydroxy toluene

employed by Linnaeus in the book :

- (A) Species plantarum
- (B) Systema nature
- (C) Genera plantarum
- (D) Fundamenta botanica

62. Potato, tomato and tobacco belong to family :

- (A) Brassicaceae
- (B) Malvaceae
- (C) Solanaceae
- (D) Papilionaceae

63. In trees the growth rings are

- (A) Second
- (B)
- (C) Secondary xylem
- (D) Primary xylem

64. Which type of plants have no sizeable photorespiration ?

- (A)  $C_2$
- (B)  $C_3$
- (C)  $C_4$
- (D) CAM

65. Coralloid roots are present in :

- (A) Pinus
- (B) Cycas
- (C) Gnetum
- (D) Ephedra

66. Which one of the histogen theory from apical meristem can be compared with tunica of tunica corpus theory ?

- (A) Dermatogen
- (B) Periblem
- (C) Plerome
- (D) Calyptrogen

(B) Sanctuary  
(C) Biosphere Reserve  
(D) Botanical Garden

68. Meristematic tissues from which lateral roots originate are known as :  
(A) Cortex  
(B) Pericycle  
(C) Epidermis  
(D) Pith

69. The initial acceptor of CO<sub>2</sub> is :  
(A) Phosphate  
(B) Bisphosphate  
(C) Phosphoglyceric acid  
(D) Phosphoenol pyruvic acid

70. The basic structure of all chlorophylls consists of :  
(A) Phaeophytin  
(B) Flavoprotein  
(C) Porphyrin  
(D) Plastocyanin

(B) Cytokinin  
(C) Gibberellins  
(D) Ethylene

72. Synthesis of hydrolysing enzymes during germination is induced by :  
(A) GA  
(B) ABA  
(C) IAA  
(D) Ethylene

73. A small part of plant cutting used in tissue culture is called :  
(A) Cutting  
(B) Explant  
(C) Stock  
(D) Meristem

74. Bottle shaped fertile structure of penicillium bearing conidia in chains are called :  
(A) Phialides  
(B) Columella  
(C) Ascus  
(D) Vesicle

(B) Corolla and Androecium  
(C) Androecium and Gynoecium  
(D) Calyx and Gynoecium

super imposed cells  
(B) Each spore is dark brown or black  
(C) Paired nuclei fuse in each cell  
(D) Single celled, Binucleate and strongly echinulate

76. Which one is ~~unrelated~~ pair ?

(A) Yeast - Budding  
(B) Bacteria - Spore formation  
(C) Spirogyra - Zoospores  
(D) Ulothrix - Fragmentation

79. A hybrid tall pea plant was crossed with pure tall plant and percentage of phenotypic tall plants were observed in next filial generation. What will be the correct result ?

(A) 25  
(B) 50  
(C) 75  
(D) 100

77. In which character does a pandemic disease differ from epidemics ?

(A) Occurs in vast areas  
(B) Destructive form  
(C) Caused by a pathogen  
(D) Occurs in a small area

80. An exception to Mendel's law is :

(A) Independent assortment  
(B) Purity of gametes  
(C) Dominance  
(D) Linkage

81. Which of the following does not form the basis of five kingdom classification ?

(A) Body organization  
(B) Cell structure  
(C) Mode of nutrition  
(D) Mode of excretion

82. Which sex chromosome sets are present in normal human males ?

(A)  $XO$   
(B)  $XY$   
(C)  $YY$

83. The process by which DNA makes a copy of itself is called :

(A) Replication  
(B) Transcription  
(C) Translation  
(D) Polymerization

84. Percentage of crossing over is more when :

(A) Genes are linked  
(B) Linked genes are located far away from each other  
(C) Linked genes are located close to each other  
(D) Linked genes are located in different cells

85. The reciprocal exchange of chromatids during meiosis is called :

(A) Synapsis  
(B) Crossing over  
(C) Diakinesis  
(D) Terminalization

86. When two populations of a species are present on two extreme ends of a forest, they are in :

(A) Seasonal isolation  
(B) Geographic isolation  
(C) Ethological isolation  
(D) Temporal isolation

(C) Hepatitis  
(D) Diabetes

88. Which is the in-situ conservation method for wildlife ?  
(A) Zoo  
(B) Aquarium  
(C) National park  
(D) Botanical garden

89. Which is a renewable natural resource ?  
(A) Biomass  
(B) Coal  
(C) Petroleum  
(D) CNG

90. Which one is the most acceptable and recent theory of organic evolution ?  
(A) Lamarckism  
(B) Darwinism  
(C) Isolation theory  
(D) Synthetic theory

(B) Hepatic  
(C) Pulmonary  
(D) Renal

92. During heavy physical exercise muscles produce :  
(A) Amino acids  
(B) Lactic acids  
(C) Citric acids  
(D) Acetic acids

In a normal adult human the difference between the systolic and diastolic pressure is :

(A) 40 mm Hg  
(B) 20 mm Hg  
(C) 80 mm Hg  
(D) 120 mm Hg

94. Which part of renal tubule is sensitive to the action of ADH ?  
(A) Distal convoluting tubules and collecting ducts  
(B) Glomerulus and Bowman's capsule  
(C) Glomerulus and Loop of Henle  
(D) Loop of Henle and Ureter

(B) Pyruvic acid

(C) Acetyl coenzyme A

(D) Oxaloacetic acid

96. Which part of mammalian brain does control the voluntary muscular co-ordination?

(A) Cerebellum

(B) Optic lobes

(C) Corpus callosum

(D) Pineal

97. What types of carrying spinal cord?

(A) Interneurons

(B) Motor neurons

(C) Sensory neurons

(D) Undifferentiated neurons

(B) Kidney

(C) Liver

(D) Heart

99. Antrum is the cavity of:

(A) Morula

(B) Graafian follicle

(C) Blastula

(D) Gastrula

100. The first cleavage furrow that divides zygote completely into two cells is a type of:

(A) Radial cleavage

(B) Meroblastic cleavage

(C) Holoblastic cleavage

(D) Equatorial cleavage

101. Which of the following is not a characteristics of learner-centric learning ?

- (A) Teacher and students evaluate learning together.
- (B) Teaching leads to increase student learning and long-term retention.
- (C) Approach is compatible with interdisciplinary investigation.
- (D) Emphasis is on communicating knowledge effectively.

102. Who said curriculum is a written plan ?

- (A) Ragan
- (B) Tylor
- (C) Albert
- (D) Smith, Stanley and Shor

103. The following statements are the func of SMC except :

- (A) Review coverage of cours
- (B) Supervi activities.
- (C) Intimate the PTA and the District Officer about the grants received and utilisation thereof.
- (D) Monitor the identification and enrolment of and facilities for learning by disabled children.

104. To maximize the return on investment from the organisation's human capital and minimize financial risk is the objective of :

- (A) Physical Resources
- (B) Human Resources
- (C) Financial Resources
- (D) Community Resources

105. A child is talking with his friend and says, "Mine is gooder". Which theory of language acquisition best explains the use of "gooder" ?

- (A) Skinner theory
- (B) Social cognitive theory
- (C) Noam Chomsky's theory
- (D) None of the above theory

106. According to Socio-cultural theory of Vygotsky :

- (A) The child thinks in different domains does not take a complete perspective.
- (B) Culture and language play a crucial role in development.
- (C) Children think in abstract terms if presented abstract material at a lower age.
- (D) Self-directed speech is the lowest stage of the scaffold.

(A) Graham Balfour  
(B) Kandel  
(C) J.B. Thomas  
(D) Shelly Umans

108. Which theory of concept characteristics of other

(A) Rule-Driven theory  
(B) Exemplar theory  
(C) Both (A) and (C)

109. According to Lawrence Kohlberg's theory of moral development, at which stage, people make decisions based on loyalty, living upto the expectations of others and social conventions :

(A) Social Contract  
(B) Interpersonal Harmony  
(C) Universal Principles  
(D) Law and Order

(A) Experimental sub-theory  
(B) Contextual sub-theory  
(C) All of the above

111. In which stage of cognitive development a child can think logically about objects ?

(A) Sensori-motor  
(B) Pre-operational  
(C) Concrete operational  
(D) Formal operational

112. Riyu is a tenth class student in your history class. She seems to have a good understanding of the content, that is, she can recite for you the dates and places of the events you have covered in class. However, when you ask the class to defend a point, she often uses the wrong information to support her points. Riyu most likely needs help in increasing her \_\_\_\_\_.

(A) Prior Knowledge  
(B) Procedural Knowledge  
(C) Declarative Knowledge  
(D) Conditional Knowledge

(C) Practicality  
(D) Ethics

114. In a constructivist classroom as envisioned by Piaget and Vygotsky learning :

(A) Is dictated by the teacher and the students are passive recipient of the same  
(B) Happens by pairing of stimulus and a response  
(C) Is offering of reinforcement by the teacher  
(D) Is constructed by the students themselves who play an active role

115. The teacher can utilize both 'assessment for learning' to :

(A) Monitor children's progress and set appropriate goals to fill their learning gaps.  
(B) Know children's progress and achievement level.  
(C) Know learning needs of child and select teaching strategy accordingly.  
(D) Assess children's performance at periodic intervals and certify his/her performance.

(B) Marks

(C) Portfolios

(D) Both (A) and (B)

117. "To provide a common platform for the state and the centre to share their views about improving educational standards." -is one of the objectives of :

(A) NCERT  
(B) CET  
(C) CABE  
(D) NIEPA

118. In learning, assessment is essential for :

(A) Grades and marks  
(B) Screening test  
(C) Motivation  
(D) Fostering the purpose of segregation and ranking

(A) Jean Piaget

(B) Carl Rogers

(C) Erik Erikson

(D) Robert J. Sternberg

120. "Leadership motivates the people to work and not the power of money". This concept is related to :

(A) Supportive model

(B) Custodial model

(C) Autocratic model

(D) Collegial model

121. According to Psychology, the process of learning and forgetfulness is

(A) Forgetting is failing to remember at any time

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(B) Forgetting is failing to retain

(C) Forgetfulness is voluntary

(D) True learning is judicious forgetting

(A) Meta component

(B) Component sub-theory

(C) Performance component

(D) Knowledge acquisition component

123. The benefits of formative assessment include all of the following except :

(A) Guides teachers in deciding what they "need to do tomorrow" in terms of instruction

(B) Provides various scores for teachers to average into a grade

(C) Gives teachers the opportunity to make immediate adjustments to their instruction

(D) Provides feedback to help students adjust and improve their performance

(B) Manpower approach  
(C) Social justice approach  
(D) None of the above

125. The followings are the characteristics of self learning except :

(A) Can fulfill the needs of the student  
(B) The programmed instruction method reduces the problems of the group learning  
(C) Stimulus - Response in this method motivate the students  
(D) None of these

126. Why might a teacher chose to use an analytic rubric for his/her presentation ?

(A) To judge the presentation as a whole  
(B) Because he/she wants to use a rubric that can be created quickly  
(C) To give the students specific feedback  
(D) To grade the presentation quickly

(B) Premises  
(C) Responses  
(D) Direction

128. The following are the characteristics of mental development in adolescence except :

(A) Ability of problem solving  
(B) Self-criticism and evaluation  
(C) Symbolic and pre-conceptual thought  
(D) Increased rational self-control

129. Who viewed intelligence as how well individual deals with environmental changes throughout their life span ?

(A) Robert J. Sternberg  
(B) J.P. Guilford  
(C) Noam Chomsky  
(D) Lev Vygotsky

- (A) Selective attention
- (B) Divided attention
- (C) Adapted attention
- (D) Bi-directed attention

131. The second MLE Workshop (2006) was conducted for :

- (A) Preparation of curriculum.
- (B) Identifying the themes as per national curriculum.
- (C) Preparation of instruction format
- (D) All of the above.

132. Which of the following is not a merit of small group learning ?

- (A) The level of achievement increases
- (B) It enhances the leadership quality
- (C) It clears the doubts in learning immediately
- (D) Motivation is developed among the learners

- (A) Gardner's multiple intelligence theory
- (B) Vygotsky's socio-cultural theory
- (C) Piaget's cognitive development theory
- (D) Kohlberg's moral development theory

134. Which of the following is the first decision that needs to be made when developing a portfolio ?

- (A) What goes in it ?
- (B) How and when are the entries selected ?
- (C) What should it look like ?
- (D) How is the portfolio evaluated ?

135. The content of a portfolio is largely based on :

- (A) The goal and purpose of the portfolio
- (B) The characteristics of the student evaluated
- (C) The length of the portfolio
- (D) None of the above

136. Create a system that is clear, understandable and consistent with school.

- (A) Base grades on observable data.
- (B) Assign grades consistently regardless of gender, class or socio-economic status.
- (C) All of the above

137. Art is a very effective medium of :

- (A) Exposure to social phenomenon
- (B) Self-expression and communication
- (C) Development of moral values in life
- (D) Expressing the hidden knowledge within the child

138. Which of the following is not a merit of learning centered approach ?

- (A) Learners find interest in learning
- (B) It fosters in learners a sense of co-operation
- (C) Students mostly depend on teachers
- (D) Emotional problems of learners are properly channelised

- (A) The range of problem, a child can solve if given some assistance.

- (B) Children cognition remains limited by pre-operational mode of understanding.

- (C) Children acquire cognitive structure from cultural and social interactions.

- (D) Parent and teachers can foster cognitive development.

140. The concept of 'accommodation' in Piaget's development scheme implies :

- (A) That these are cognitive structures

- (B) Incorporation of something new in the environment.

- (C) Modification or change of an old scheme to learn a new scheme.

- (D) Maintaining balance between child and changing equilibrium.

- (A) Assessment for learning
- (B) Assessment as learning
- (C) Assessment of learning
- (D) All of the above

142. Which of the following is an advantage of peer assessment ?

- (A) Peer pressure and friendship can influence the reliability of grades
- (B) It enhances the time of marking
- (C) Students learn how to criticise, evaluate and apply other generic skills during the process
- (D) Extroverted students can be marked higher

143. Who developed a theory of motivation called drive-reduction theory of reinforcement ?

- (A) E.L. Thorndike
- (B) Kurt Lewin
- (C) Harry Harlow
- (D) Clark L. Hull

- (B) Access according to the answer given in guide-book.
- (C) Access children's ability to use his/her knowledge for problem solving and its application in the real world.
- (D) Access by fixed rules of marking and ranking.

145. According to NCF-2005 the purpose of evaluation is not :

- (A) to motivate children to study under threat
- (B) to label the children as slow learners
- (C) to identify child who requires remediation
- (D) all of the above

146. According to Erikson's theory, industry Vs inferiority conflict is found at which stage ?

- (A) School age
- (B) Early childhood
- (C) Adolescence
- (D) Adulthood

- (D) Confidence
- (C) Achievement
- (D) Improvement

- (B) Formative evaluation
- (C) Summative evaluation
- (D) Evaluation of both cognitive and co-cognitive area

148. Which of the following characteristics is not reflective of a cognitive view of learning ?

- (A) Changes in knowledge lead to changes in behaviour.
- (B) The outcome of learning is an observable behaviour.
- (C) Reinforcement is seen as information.
- (D) Humans are active learners.

- o o -

149. The chief responsibility of Headmaster is to :

- (A) Maintain school records
- (B) Handle discipline problems
- (C) Provide leadership in instructional plan
- (D) Organise and administer the guidance program